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Stabilization Is Nearer Than in Years

Highest production in 1931, week ending Aug. 8, average daily output 2,551,807 bbls. Peak of U. S. production, week ending Aug. 24, 1929, average 2,975,435 bbls.

Primary Object of Curtailment of Crude Output Now Is to Protect Properties to Insure Investment Return

By Andrew M. Rowley

Lowest daily average crude oil production in the United States during 1931 was for week ending Sept. 5 with average output of 1,736,007 bbls.

Stabilization of the petroleum industry is nearer realization at this time than it has been in years. Crude oil production is being kept very nearly in balance with demand and refiners are more impressed with the necessity of curtailing the manufacture of gasoline to prevent the piling up of burdensome stocks of motor fuel which serve only to depress the price structure.

The industry is beginning to realize more and more crude oil proration and curtailment as practiced now is not so much for the purpose of limiting the output to market demands as it is to protect properties and permit companies and individuals to obtain a sufficient quantity of crude oil from these properties to pay out investments. In other words engineers and production men know they must conserve the reservoir energy in East Texas and operate their wells in Oklahoma City, Hobbs, West Texas and other large producing areas with a back pressure to prevent water encroachment.

The reservoir energy in East Texas is comparatively low and companies operating there already are preparing to install pumping equipment on their wells. The danger of water encroachment in other flush fields is so great, curtailment of production is an absolute necessity if ruination of the properties from water is to be prevented until sufficient crude will have been obtained to pay out the investment.

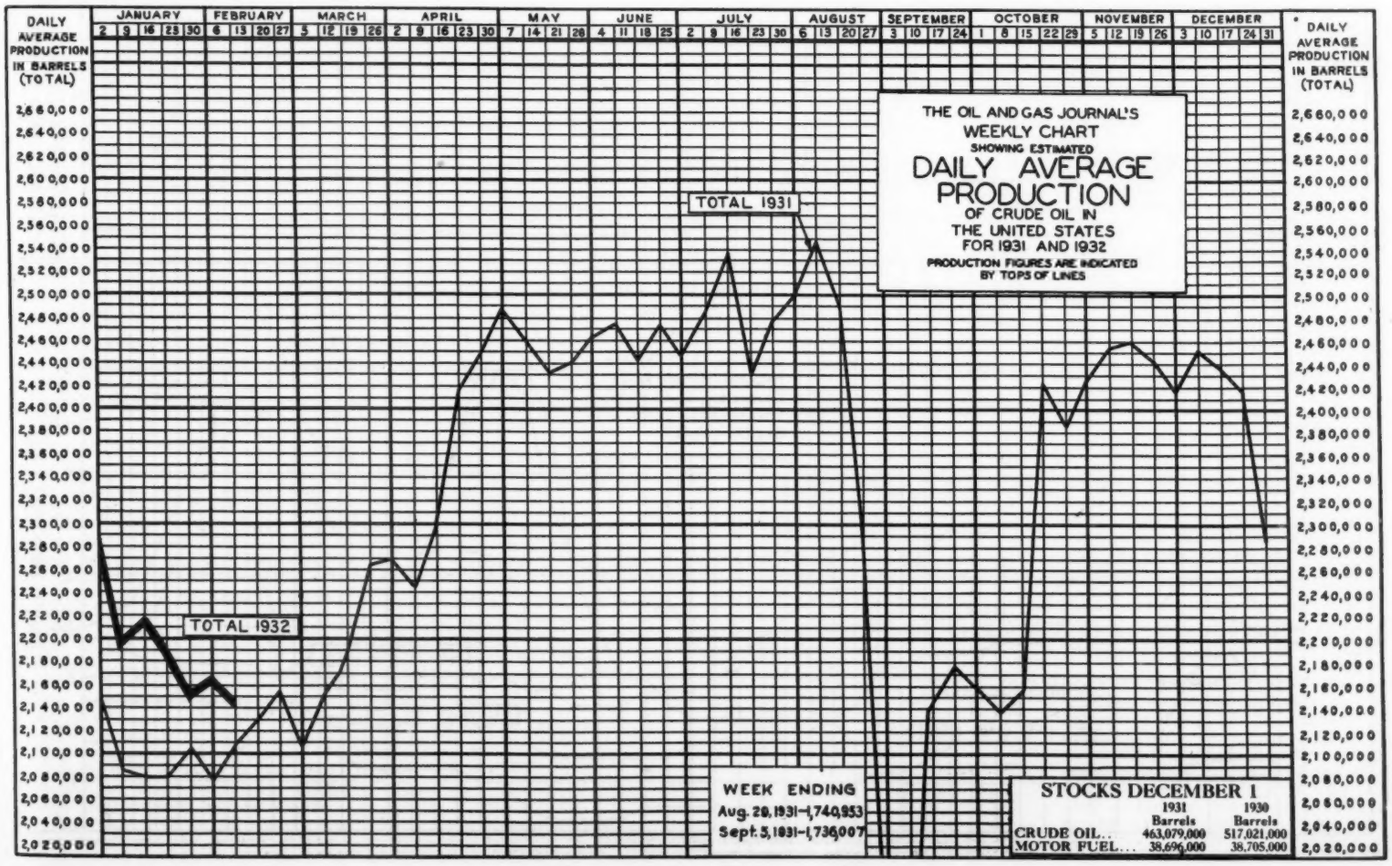
"Potential", the bugaboo of early 1931, is almost an obsolete term at this time as far as meaning what a field can produce over any length of time. Owners of properties cannot afford to open their wells and take a chance of flooding the sands with water. Sound business necessitates their taking every precaution to obtain the greatest ultimate recovery and they know to do this they must limit the output of these wells to keep back the water.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of crude oil in the United States for week ended February 6 and a comparison with the previous week follows:

	Feb. 6	Jan. 30
Oklahoma—		
Oklahoma City	77,965	97,960
Seminole-St. Louis	114,530	112,985
Remainder of State	203,115	201,390
Total Oklahoma	395,610	412,335
East Texas—		
Kilgore	110,457	110,155
Lathrop	122,389	118,376
Joiner	116,234	116,819
Total East Texas	349,080	345,350
West Texas	176,686	174,152
North Central Texas	73,635	73,745
Texas Panhandle	50,363	51,686
East Central Texas	49,590	50,035
Gulf Coast—Texas	108,255	108,010
Southwest Texas	57,510	57,594
Total State of Texas	865,119	860,572
North Louisiana	28,345	28,835
Gulf Coast—Louisiana	29,945	30,332
Arkansas	33,505	34,520
Kansas	97,815	98,145
Eastern	118,000	121,000
Rocky Mountain	80,906	79,696
California—		
Santa Fe Springs	66,000	66,250
Long Beach	77,000	78,000
Playa Del Rey	21,000	21,000
Elwood	16,500	16,200
Kettleman	61,000	60,500
Remainder of State	257,500	261,550
Total California	499,000	503,500
Total United States	2,148,245	2,168,935

→ Decrease 20,690 Bbls. Daily ←



Natural Gasolines Lower in Oklahoma

Quotations First of Week Near Low Point of Past Year. Low Octane Refinery Also Moving Slowly at Reduced Prices

By C. O. Willson

Low octane refinery gasolines and natural gasolines continued their price decline in the Oklahoma (Group 3) market over the past week. The U. S. Motor grade of gasoline with no octane rating guaranteed, is available from several sources in Oklahoma and competitive areas at a low of 2¾ cents basis Group 3. Resale material both for prompt delivery and delivery over the month has been sold at 2⅝ cents. The bulk of this gasoline is straightrun gasoline with an octane rating around 50 with no guarantees as to antiknock rating made by the seller.

Natural gasolines which have been suffering from exceptionally dull trading since late in January broke an additional one-half cent during the week and on Monday and Tuesday the 26-70 grade was available in Oklahoma and Texas at a low of 1½ cents and a high of 1⅝ cents. This price is within one-eighth cent of the low of last year established in May when Grade AA sold for 1⅜ cents, the lowest price since natural gasoline became a major source of motor fuel supply. The low prices brought some improvement in buying the first of the week and manufacturers were hopeful that the bottom had been reached in quotations.

No important price changes were reported in other products. The demand for kerosene, furnace oils and tractor fuel is sufficient to maintain steady prices although it is predicted that some new buying in kerosene will be necessary within a few days if the prices of the relatively favorable market of the past few weeks is to be maintained. Fuels and regular grades of gas oil are not active but prices have been steady over the week.

REFINED MARKET BAROMETER

No price changes of major importance in refined markets were reported over the past week. Scattered price reductions were made effective in gasoline tank car markets, the most important of which were the local adjustments made in southern California as a result of the unsettled condition of the retail market brought about by the introduction of a third grade gasoline. The weakness in refinery gasolines in all areas is largely confined to grades of low antiknock rating. Natural gasoline quotations continued to decline in the Mid-Continent and points east of the Mississippi River. Kerosene, furnace oil and tractor fuel were generally steady with the reported demand varying from fair to strong. Price changes in fuel oil and gas oil were unchanged. Bright stock prices were stronger in Pennsylvania with no changes in other areas. Demand for petroleum wax dull. Better demand for petrolatum.

Mid-Continent—Low octane refinery gasolines and natural gasoline prices lower. Kerosene and furnace oil steady. Slow demand for fuel oil and gas oil. Lubricants unchanged.

East Coast—Kerosene prices reflect weakness. Gasolines steady with high octane material strong. Bunker fuel oil steady. Fair demand for Diesel oil. Reductions in some grades of steam refined stocks. Wax slow.

Chicago—Demand for gasoline centers in high octane material. Low octane gasoline prices lower than last week. Kerosene demand not so strong and prices lower. Good seasonal demand for furnace oil.

Pennsylvania—Reductions in refinery operations reflected in better prices for bright stocks and some of the other stocks. Neutrals slow. Gasoline steady. Prices on some grades of kerosene lower.

Gulf Coast—Slow trading in practically all products. Pale and red neutral price reductions may result due to poor demand.

California—Introduction of third retail grade in southern California reflected in lower quotations at local refineries. Other products steady.

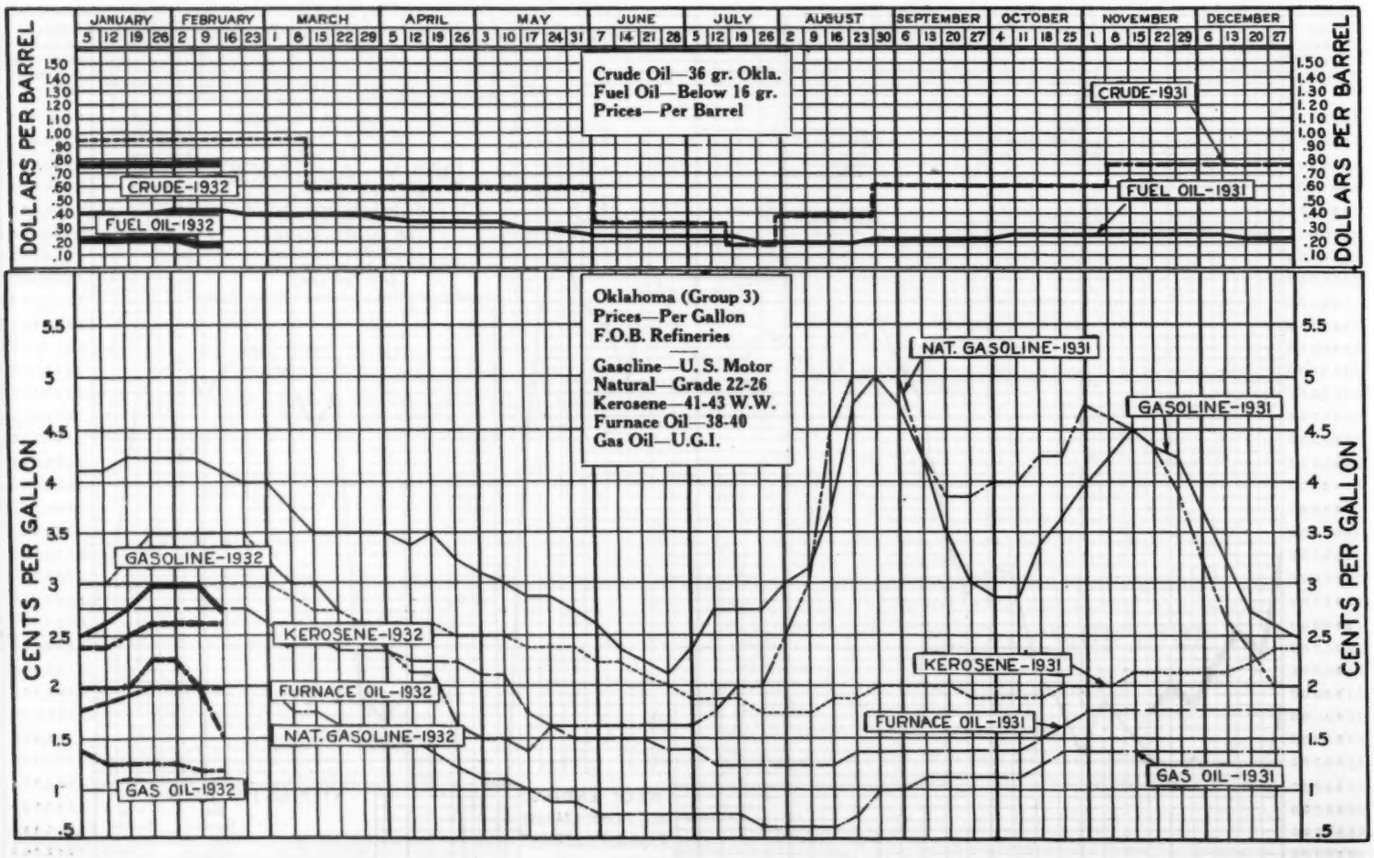
Developments Disappointing

The failure of the gasoline market to reflect the recent reductions in the allowable production in East Texas and Oklahoma City fields which presumably have eliminated all excess crude oil supplies, has been a disappointment to refiners in the Mid-Continent. It had been assumed that if the crude oil situation could be tightened, it would eliminate some of the cheaper sources of gasoline supply and the tank car market in Oklahoma and other Mid-Continent areas would at least continue firm. It is true that by widening the spreads between high octane gasolines and those in which no octane rating is guaranteed, prices are being maintained on the better material. However, this development has little significance in the open tank car market for the reason that very little of the high octane material is being offered for spot movement.

Refiners making gasoline of 60 or better octane rating, usually get rid of their limited output through their own stations or through long time jobber contracts. The relative scarcity of this material points to a condition which will have important bearing on markets later in the year but right now the immediate problem is the disposal of the low octane gasoline coming from both small and large refineries. Unfortunately in this connection, many of the contracts on the higher octane gasolines are based on the low octane material so that the low spot prices for the latter mean minimum returns for the best gasoline obtainable in plant operations.

The tank wagon and service station outlet for this low octane gasoline to a large extent is the third grade pumps of the major distributors and jobbers who over the past two years, have featured cut-rate gasolines. The widening activities of the latter were responsible for the introduction of the third grades at the stations of the major companies and has resulted in a competitive condition in which the third grade is being retailed at many points at prices which necessitate low tank car prices at refineries if any allowance is to be made for distributing costs. In fact cases are cited where if the usual allowance was made for distributing costs, plus freight the net back to the refinery would be 1 cent per gallon or less. In brief third grade or cut-rate gasoline has become unprofitable regardless of whether

(Continued on Page 96)



Small Increase February Refinery Runs

East Texas Group Continues to Curtail Operations. Nearly One-Half of All Plants in North Central Texas Shut Down

By W. T. Ziegenhain

Mid-Continent refinery crude runs will remain abnormally low during February, only a slight increase being shown over those of January. Six additional plants will be shut down while two plants which were idle during January will resume operations this month.

Most refiners feel that if the current level of operations is maintained throughout February and well into the spring normal prices may be restored during the summer and it is this hope that is prompting several refiners to hold their operating organizations together and convert the crude into refined products and then into cash as quickly as possible. Some point to the East Texas refiners as the disturbing factor in the Mid-Continent market. Runs there have been held to an extremely low level because of the shortage of crude in some cases and because of the greater profit in selling the crude than in the sale of the refined products.

The East Texas plants are running approximately 15,500 bbls. which is less than one-fifth of the combined refining capacity built there within the past two years.

Despite the regulation of crude production in the East Texas fields by martial law in accordance with plans intended to conserve the gas pressure and effect a maximum recovery of oil from the field, there has been persisting statements that more oil is being run in the East Texas refineries than is reported.

This accusation has been made against refiners in other areas in time past and was usually found to be market gossip and the influence of any discrepancies that actually existed was too small to alter the principal problem. Because East Texas runs are relatively low and because the total runs for the Mid-Continent continue to be maintained below the level of those at any time during the past five years, market students generally view the status of operations more optimistically. Once a balance may be struck between the gasoline supply and demand and we then enter the summer season of higher consumption, with reasonably low gasoline stocks and not the customary overbuilt new refining capacity which has faced the industry almost every year in the past, prices are more likely to be restored to a profitable level and maintained for once, during the season of highest consumption. Hopes are being placed in such a program despite the belief that the number of motor cars will continue to decline during the first half of 1932 in accordance with the estimate made by the economics committee of the Federal Conservation Board.

Shutdown Plants

Those areas showing the largest number of shutdown plants include North Central Texas, West Texas and East Texas. The North Central Texas area shows the largest number of idle plants and total idle plant capacity, while East Texas shows the largest percentage of idle capacity. In North Central Texas 28 plants are operating and 23 will be idle during February. This represents 31 per cent of the total refining capacity for the area. Expressed in daily crude capacity, it is shown that 64,300 bbls. capacity remains idle in the total of 204,000 bbls. capacity. In West Texas, 19 plants will operate in February while 10 plants remain idle. The percentage of idle capacity approximates 31 per cent of the total, or 43,000 bbls. of the 140,000 bbls. total capacity will be idle. In East Texas only 6 of the 19 plants will be shut down over the month but the idle plants represent 36 per cent of the total capacity.

Oklahoma

Oklahoma's refinery operations will remain approximately the same during January. The daily runs have been scheduled to total 146,600 bbls. whereas the January schedule called for a total of 143,165 bbls., an increase of only 3,435 bbls.

MID-CONTINENT REFINERY OPERATIONS

CRUDE RUNS TO STILLS

	1929	1930	1931	1932
January 1	508,550	535,460	478,795	405,910
February 1	506,800	519,355	470,125	411,280
March 1	514,950	531,500	449,634	.....
April 1	530,530	555,250	497,391	.....
May 1	577,500	574,300	510,640	.....
June 1	583,030	572,250	567,915	.....
July 1	565,800	548,475	588,840	.....
August 1	555,250	526,400	590,545	.....
September 1	552,300	498,710	588,105	.....
October 1	544,720	518,800	472,190	.....
November 1	545,473	506,700	480,440	.....
December 1	540,630	478,360	456,525	.....

OPERATIONS BY DISTRICTS

Districts—	February 1 Dy. crude capacity (bbls.)	February 1 Dy. crude runs (bbls.)	Jan. 1 Dy. crude runs (bbls.)	Feb. 1 Daily increase (bbls.)
Arkansas	48,000	19,400	21,050	*1,650
Kansas	153,500	83,900	79,850	4,050
North Louisiana	40,250	26,350	26,700	*350
Oklahoma	309,300	146,600	143,165	3,435
North Central Texas	204,700	85,550	86,100	*550
West Texas	139,900	33,930	34,170	*240
East Texas	79,800	15,550	14,875	675
Total	975,450	410,280	405,910	5,370

*Decrease.

REFINERY OPERATIONS IN OKLAHOMA

(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
Altitude Petroleum Corp., Oklahoma City	3,000	500	800
Anderson-Prichard Oil Corp., Cyril	5,000	3,500	3,500
Barnsdall Refineries, Inc., Barnsdall	6,000	3,350	3,500
Barnsdall Refineries, Inc., Okmulgee	10,000	4,500	5,000
Bell Oil & Gas Co., Grandfield	4,500	1,800	800
Black Gold Refining Co., Oklahoma City	1,500	800	700
Capital City Refining Co., Oklahoma City	2,500	200	200
Century Petroleum Co., Tulsa	500	(*)	(*)
Century Petroleum Co., Oklahoma City	2,500	1,000	1,500
Champlin Refining Co., Enid	16,000	7,000	6,500
Continental Oil Co., Sapulpa	10,000	1,500	1,500
Continental Oil Co., Ponca City	30,000	10,700	8,350
Cushing Refining & Gasoline Co., Blackwell	1,800	1,200	1,000
Cushing Refining & Gasoline Co., Cushing	3,500	2,500	1,800
Deep Rock Oil Corp., Cushing	10,000	9,000	9,000
Eason Oil Co., Enid	5,000	2,700	2,700
Empire Oil & Refining Co., Okmulgee	4,000	3,000	3,000
Empire Oil & Refining Co., Ponca City	12,000	7,500	7,500
Garber Refineries, Inc., and Omar Refining Co., Garber	3,500	2,000	2,000
Globe Oil & Refining Co., Blackwell	7,500	6,500	6,000
Gulf States Oil Corp., Oklahoma City	3,500	1,500	1,500
Johnson Oil Refining Co., Cleveland	6,000	4,000	4,500
McCullough Oil Co., Oklahoma City	2,000	(*)	(*)
Mid-Continent Petroleum Corp., West Tulsa	40,000	20,000	20,000
Marathon Oil Co., Boynton	2,500	(*)	(*)
Marathon Oil Co., Bristow	5,000	3,000	3,100
Peerless Refinery & Gasoline Co., Oklahoma City	2,000	(*)	(*)
Phillips Petroleum Co., Okmulgee	5,000	4,000	3,200
Producers Oil Co., Bristow	2,500	1,000	1,000
Producers & Refiners Corp., West Tulsa	6,000	3,000	3,000
Pure Oil Co., Ardmore	5,000	2,300	2,200
Pure Oil Co., Muskogee	9,000	8,000	7,500
Rock Island Refining Co., Beckett	5,000	3,700	4,250
Sinclair Refining Co. (Pierce), Sand Springs	8,000	2,300	2,300
Sun Oil Co., Yale	5,000	3,300	3,300
Sunray Oil Co. (C. H. Wright, receiver), Allen	7,000	(*)	3,200
The Texas Company, West Tulsa	15,000	7,000	6,500
Texas Pacific Coal & Oil Co., Wynnewood	3,000	(*)	(*)
Tidal Refining Co., Drumright	15,000	7,000	7,000
Western Oil Corp., Beckett	2,000	1,200	1,200
White Oak Corp., Allen	8,000	(†)	(†)
Wilcox Oil & Gas Co., Bristow	5,000	3,000	1,000
Wirt Franklin Petroleum Corp., Ardmore	4,000	2,650	2,365
Yale Oil Corp., Yale	2,000	400	400
York Refining Co., Oklahoma City	3,000	(*)	(*)
Total	309,300	146,600	143,165

*Shut down. †Cracking only.

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One plant has been added to the list of shutdown refineries for February, the Sunray Oil Co.'s plant at Allen. The company has chosen to store its crude supply for a period of 30 to 60 days. Barnsdall Refineries, Inc., will not operate its Okmulgee plant for the first 10 days of the month but will operate on a schedule over the balance of the month to bring the average crude runs for the month to 4,500 bbls. Before the end of February it is also likely that the York Refining Co. will resume operations in its plant at Oklahoma City. This will not be before the latter half of the month and runs will be maintained between 200 and 300 bbls. daily.

Kansas

Kansas has maintained a rather constant schedule of runs at its plants and except for the Sinclair Oil & Refining Co.'s plant at Argentine, all are operating. The total crude runs for the State have been scheduled at 83,900 bbls., or about 4,000 bbls. higher than the schedule of a month ago. The increase was occasioned principally by the raising of the runs in the White Eagle Oil Corp.'s plant in Augusta from 11,000 bbls. in January to 15,000 bbls. in February. Several lesser changes are shown in the operations of the other plants but these are compensating.

North Central Texas

Although the crude runs of the plants in the North Central Texas area remain practically unchanged there have been several changes in the status of the operating and shutdown plants. In February three plants will be added to the list of those shut down while three plants which did not operate in January will resume operations in February. Those plants shut down are the All State Refining Co. at Thrall, the Apache Refining Co. at Sunray, the Falls Refining Co. at Wichita Falls, and the Petroleum Refractionating Co. at Pampa. The Petroleum Refractionating Co. expects to resume operations late in the month but plans remain indefinite. The Falls Refining Co. has closed its plant pending developments as the result of the company's assets being placed in receivers' hands. Those refineries to resume operations in February include the Olney Oil & Refining Co., at Olney, the Simms Oil Co. at Dallas, and the Wilcox Oil & Gas Co.'s plant at Pampa.

West Texas

West Texas refinery operations continue to show a decline. One additional plant has been added to the list of idle plants, namely, the Signal Refining Co. at Texon. One plant has resumed operations in February. This is the El Paso refinery of the Rio Grande Oil Co.

East Texas

There was practically no change in the status of the operating and shutdown plants for February, in the East Texas Field. Similarly, there was no material change in the schedule of runs for the month compared to the schedule for January. The 10,000-bbl. plant of the Petroleum Refractionating Co. at Longview remains idle but in the near future the company expects to begin its operation. It is also probable that some form of cracking plant will be added but this program is still indefinite.

North Louisiana and Arkansas

Except for a small decrease in the Arkansas refinery runs operations in the Arkansas-North Louisiana area remain practically unchanged. One plant will resume operations in February and there will be no plants to be shut down. The plant to resume operations is that of the Bayou State Refining Co. at Hosston.

Arguments Presented Against Tariff

R. G. Stewart States Case for Importers Before Ways and Means Committee. Offers Answer to Wirt Franklin. Many Opinions Heard

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 8.—Robert G. Stewart, president of the Pan American Petroleum & Transport Co., was the chief spokesman against the tariff on oil before the Ways and Means Committee. He began his statement by saying:

"Mr. Wirt Franklin submitted to the Ways and Means Committee a proposal to raise revenue by the imposition of a tax on foreign oils exclusively, and alleged in support of his recommendation the following:

"1. A tax on imported oil will raise a big revenue.

"2. It will equalize the cost to importers with cost to domestic producers.

"3. It will therefore not end or diminish imports.

"4. It will not raise gasoline prices, but will raise fuel and crude oil prices.

"5. The Tariff Commission report shows that a tariff of $1.03 a barrel on crude would 'equalize' foreign and domestic costs.

"Therefore, imports will continue and produce revenue."

"In order to be as concise as possible," said Mr. Stewart, "I will present information I wish to give to your committee by taking the points urged by Mr. Franklin, showing you that, contrary to his contention—

"1. Such a tax will not raise any revenue at all.

"2. It will not equalize cost to importers with cost to domestic producers as such costs in this year of 1932 favor the domestic producers over the importers.

"3. The importers would be gravely injured and imports would cease.

"4. The price of gasoline as well as of crude and fuel oil would be raised by this measure. How the opposite can be held in the face of a proposed 100 per cent ad valorem on gasoline is hard to understand.

"5. The Tariff Commission report does not show a difference of $1.03 cents a barrel between the cost of foreign and domestic oil. The actual difference of the figures in the commission's report is only 6 cents; and the commission states that these figures are unfair to the importers of foreign oil. A correction of these figures changes the difference from 6 cents a barrel in favor of foreign oils to 12 cents a barrel in favor of the domestic product.

"Certainly with the proper interpretation of the data collected by the Tariff Commission, showing an advantage to domestic producers of 12 cents per barrel, and with present market prices for fuel oil and gasoline obtaining on the Atlantic Seaboard, it would be utterly impossible for any operating company to import its crude or any derivatives of crude with a handicap in the form of any tariff or excise duty whatsoever. Particularly a tariff varying from 84 cents per barrel, in the case of fuel oil, to $1.68 in the case of gasoline.

Point by Point

"We will take up these points in order:

"1. Unless there is really a difference in cost of delivery of crude, fuel and gasoline on our Atlantic Coast, any special tax, tariff or otherwise, on imported oils will fail to produce any revenue; for we will not be able to import oil at all and this branch of the American oil industry will be completely destroyed unless it can find a foreign market for its products.

"2. If costs are already equalized, or are, in fact, to the disadvantage of imports, the tax will not equalize conditions, but will create an even greater handicap to imports, the more surely cutting them off.

"3. Mr. Franklin's argument that importers will not be injured answers itself. A discriminatory tax directed against any American branch of an American industry injures that branch. This tax would put this American industry out of its proper business. That the majority of the companies importing into the United States are an American industry, cannot be denied. The properties are operated by Americans, their stocks are owned by Americans, they are organized under American laws, and operate the largest group of shipping under the American flag.

"4. The argument that it will not raise gasoline prices is illogical. Gasoline is today sold at American refineries at an average price of not more than 4 cents a gallon. The proposed tax or any discriminatory tax on imports of American companies, would simply bar from entry foreign crude oil and the gasoline derived from foreign produced crude oil. A rise in the price of gasoline would be the inevitable result.

"Just as if Mr. Franklin had proposed no tax on gasoline, but only on crude oil, he repeats the fallacious argument which you gentlemen of the committee heard times without number last year — that gasoline prices do not follow the price of crude—and adduced in proof a statement of different price in February, 1926, and in February, 1929. So disseminated became this fallacy, that even Senator Borah repeated it, and the American Petroleum Institute gave eight pages in its Facts and Figures of the Petroleum Industry for 1931, refuting the argument.

"You will note from them the price of gasoline in February, 1929, was in fact lower than in February, 1926, the contrary of Mr. Franklin's assertion. This is from official figures, and his remarkable argument vacating, as it seeks to do, the law of supply and demand, falls to the ground where it belongs.

"He also stated the Federal Trade Commission reported that 'there had been little relation in normal years between the price of gasoline and the price of crude oil.' What the Federal Trade Commission really said is on page 3 of its report: (Reading from the report.)

"'Gasoline prices were promptly advanced throughout the country whenever there was an advance in crude prices.'

"And on page 175: '(1) * * * advances in crude petroleum have been followed by gasoline price increase.'

No Santa Claus in Oil

"It is difficult to see how Mr. Franklin fell into his error. Mr. Franklin admits, and we quite agree, that crude and fuel oil prices would increase; but how Mr. Franklin can argue that gasoline prices would not advance we cannot understand. Surely Mr. Franklin cannot believe that he and other producers will receive a higher price for their crude oil and have buying companies absorb this higher price as a part of their cost without passing it on to the public. Gentlemen, there is no Santa Claus in the oil business.

"Mr. Lewis, of your committee, brought

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Wilbur Conditionally for Tariff on Oil

Repeats His Suggestion in Annual Report That It Might Be Part of His Interstate Compact System, With Qualifications

WASHINGTON, D. C., Feb. 8.—Pointing out that a tariff on oil might be made the initial step in a legislative program to bring order in the oil industry, Secretary Wilbur has rendered a favorable report to the Senate Committee on Commerce on Senator Shortridge's oil tariff bill, subject to consideration by other governmental agencies of the administrative features of the bill and its proposed rates.

His report follows:

"My personal view is that a tariff on oil to be effective must be indissolubly bound up with protection to consumers and with conservation of our oil resources through control of drilling, preservation of gas energy, the equitable apportionment of common oil or gas pools, ratable taking, and the correlation of domestic production and imports, and the maintenance of exports in refined products and bunker oil; and a tariff is not capable of separation from these problems if the rehabilitation of the oil industry is to be secured and the national interest is to be conserved.

"A tariff on crude oil with proper compensatory duties on oil products would assist the oil producers and I favor it; but it would injure the oil industry if the law does not safeguard against destruction of our exports; and coincidentally it would do great injury to the oil industry through decrease of oil consumption in the Atlantic Seaboard states and cause loss of employment to many working people unless some arrangements are made by which imports of crude into that territory are permitted in amount equivalent to exports of refined products from that region.

"The potential overproduction of our new oil fields with all its incidental loss to natural resources can destroy any benefits of a tariff unless there can be developed parallel with the tariff a more systematic proration and conservation within the states and among states. The Federal Oil Conservation Board some years ago urged regulatory legislation for conservation and proration within states and it advocated compacts between states to correlate their production programs with each other. This state regulatory legislation has now been at least partially enacted in most of the large producing states and authority should be given by the Congress for them to enter into compacts among themselves subject to proper protection to consumers.

"There is a vast technology involved in this problem which no doubt your committee will fully investigate and the experts of the government departments are of course at the committee's disposal."

Exports and Imports

By converting all petroleum products—exports and imports—to a common denomination, barrels, it is possible to compare their position over a period of years. The outstanding facts derived from this analysis are: During the first two years (1921 and 1922) of the decade imports exceeded exports; from 1923 on, exports have exceeded imports, and since 1925 exports have been approximately twice as large as imports.

The following table gives the figures for each year:

IMPORTS AND EXPORTS OF PETROLEUM AND ITS PRODUCTS
(In thousands of barrels)

	U. S. crude oil prod.	Imports	Imports: Pct. of domestic prod.	Exports*	Exports: Pct. of domestic prod. plus imports	Excess imports over exports	Excess exports over imports
1921	472,183	128,792	27.3	95,436	15.9	33,356	.....
1922	557,531	139,167	24.9	103,666	14.9	35,501	.....
1923	732,407	100,079	13.6	134,492	16.2	.....	69,914
1924	713,940	95,007	13.3	156,614	19.4	.....	61,607
1925	763,743	78,683	10.3	151,892	18.0	.....	73,209
1926	770,874	81,659	10.6	173,382	20.3	.....	91,723
1927	901,129	72,414	8.0	185,751	19.1	.....	113,337
1928	901,474	92,376	10.2	202,009	20.3	.....	109,633
1929	1,006,000	105,752	10.3	209,990	18.8	.....	101,238
1930	898,000	105,623	11.8	200,886	20.0	.....	95,263
1931	850,275	86,813	10.2	163,442	17.4	.....	76,630

*Exports include Bunker oil.

An examination of the statistics of United States imports and exports of crude petroleum and of United States production shows that in a period of about 10 years production has doubled; that exports have approximately doubled; that imports are only about one-fifth of what they were; that the excess of imports over exports has been reduced over 75 per cent and that the percentage of imports to United States production has been reduced from 26 per cent to 6 per cent.

Gasoline Figures

Since 1921 gasoline production in the United States has been quadrupled from 122,704,000 bbls. to 436,217,000 (1930), exports have increased steadily from 6,543,000 to 63,195,000 bbls. while imports have risen from 900,000 to 16,927,000 (1930). In 1921 imports were 0.7 per cent of domestic production and in the first half of 1931 they were 3.3 per cent. In 1921 imports were 14 per cent of the exports and in 1931 they were 31 per cent.

Gas and fuel oil production in the United States increased from 230,091,000 bbls. in 1921 to the peak production of 428,219,000 in 1929, with a lowered rate of production in 1930 and 1931 (compared with 1929). Imports of this commodity have not indicated any trend but have since 1923 been above 7,000,000 bbls. and below 26,100,000 bbls. Exports have always exceeded imports. Exports and bunkers combined have exceeded imports from 3 to 12 times.

An examination of the statistics of crude oil imports and exports by major

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Oil Men Oppose Gasoline Tax Increase

Motorists, Truck and Taxi Owners Also Protest. Refiners and Marketers Appear Before Senator Capper's Committee

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 8.—Protests from oil associations and executives of oil companies continue to come to Senator Arthur Capper, chairman of the Senate Committee on the District of Columbia, to which has been referred the House bill to increase the gasoline tax of the District from 2 to 4 cents.

The tax evasions and racketeering that result from high gasoline taxation is being impressed upon the District of Columbia committee. Conditions in different sections of the country are being shown the committee through these communications, all of which will eventually be given a place in a report to be placed before the Senate when the proposed legislation is considered.

The Bureau of Efficiency, to which the gasoline tax bill has been referred for a report upon its advisability in connection with proposals for raising revenue for the District of Columbia, may require two or three weeks to complete its report, although preparation should be made at once by everyone who expects to submit testimony either by filing briefs or by personal appearance.

As far as possible personal appearances should be made so that the committee may have an opportunity to question the witnesses.

It will be of advantage to have a thoroughly representative attendance of the oil industry at the hearing so that all sections of the country may have witnesses to testify concerning conditions relating to gasoline tax evasion, bootlegging and racketeering.

All available evidence that illustrates the tendency of high taxation to decrease sales of gasoline and promote violations of law should be presented.

Oil Men Write

Recent letters have come to Senator Capper from Henry M. Dawes, president of the Pure Oil Co., writing from Chicago, giving forceful testimony of the bad effect of high gasoline taxation; from H. H. Ragle, president of the Michigan Oil Men's Association with headquarters at Jackson, Mich.; Axtell J. Byles, president of the Tide Water Associated Oil Co.; President Carter of the Shell Eastern Petroleum Products, Inc.; E. M. Lyon, president of the National Petroleum Association; Herbert L. Clay, secretary of the Kentucky Petroleum Marketers' Association of Louisville, Ky.; J. R. Atchison, manager of the Oklahoma Petroleum Marketers' Association, Oklahoma City; R. D. Leonard, vice president of the Atlantic Refining Co., Philadelphia, Pa., and Judge James W. Finley, general counsel, the Empire Companies, Bartlesville, Okla.

Mr. Dawes' Letter

Mr. Dawes' letter follows:

"I have been requested by some of my friends who are in the oil business to write you in connection with the projected increase in the gasoline tax in the District of Columbia from 2 cents to 4 cents. I am not directly interested in taxes in the District of Columbia as we are not doing business there, but it is my feeling that an approval of such taxes by the United States Government is likely to have an influence on the action of the local authorities under similar circumstances.

"The sales tax which has been imposed upon the petroleum industry is one which threatens its existence, not only because of its direct burden but the indirect injury that is done to honest dealers through the competitive operations of dishonest persons who evade the tax and utilize the saving in cutting prices.

"I am personally, and I believe the industry as a whole is, reconciled to a reasonable tax which should be devoted in large part to construction and maintenance of roads. Because, however, it is easy of collection, the principle of this sales tax has been extended to such an extent that in some localities the tax is twice the amount which the industry receives at its refineries for drilling wells, transporting the oil from field to refinery and refining. The tax of 4 cents which is proposed in the District of Columbia could, I think, be correctly said to approximate very closely 80 to 100 per cent of the cost of production. Obviously, a good portion of this tax is passed on to the public, so that the injustice which is done to the petroleum industry is equally inequitable as applied to the motoring public.

"I hope that you will forget that this is an ex parte statement, because you may be assured that the facts are correct. As a concrete illustration of the burden that the oil industry is bearing I will mention the fact that in the last two years taxes on gasoline which were paid by my own company were approximately three times the return that the company received on its investment. With the enforcement of the taxes which are now in effect for the current year, and with the apparent condition of earnings in most of the oil companies, this condition will be greatly exaggerated in 1932."

Autoists Protest

The District of Columbia division of the American Automobile Association will oppose any increase in the rate of the gasoline tax in the District as well as the imposition of any weight tax on privately owned and operated passenger cars. Any burden on the industry that tends to reduce the number of cars in use is closely connected with gasoline consumption, and it will be shown that these burdensome conditions fall upon those least able to bear them. The man of small income is bound to curtail the use of his car for recreation purposes. The association will stress the injustice of imposing any form of motor vehicle tax-

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Tariff Commission Issues Supplement

New Report on Petroleum Imports and Exports Supplies Additional Data. Foreign and Domestic Costs Compared

WASHINGTON, D. C., Feb. 8.—The United States Tariff Commission has issued a supplemental report on petroleum imports and exports as follows:

The decrease in total domestic production in 1931, as compared with 1930, was about 5½ per cent. The decrease in production for the four principal foreign countries exporting crude to the United States, in 1931 as compared with 1930, ranged from 10 to 18 per cent, being about 14 per cent for Venezuela (the principal country), about 17 per cent for Mexico, about 10 per cent for Colombia, and about 18 per cent for Peru. The production in Trinidad remained about the same, while, in Ecuador, it increased about 10 per cent.

Imports

Imports of crude petroleum, amounting to some 47,250,000 bbls. in 1931, represented a decrease of about 24 per cent from 1930, during which period domestic production decreased about 5½ per cent as previously noted.

Imports of Venezuelan crude from the Netherland West Indies and Venezuela, in 1931, decreased nearly 10,000,000 bbls. (or about 28 per cent) from 1930, and nearly 25,500,000 bbls. (or 50 per cent) from 1929. The decrease in 1930 as compared with 1929 was due, in large measure, however, to the installation of extensive refining facilities in the Netherland West Indies, which resulted in increased importations of gasoline and fuel oil from that source in 1930 as compared with 1929.

Total imports of all advanced and refined oils in 1931 amounted to some 38,700,000 bbls. This was a decrease of about 11 per cent from 1930 but an increase of approximately 30 per cent over 1929. This group, classified as "advanced and refined oils," consisted principally of (1) topped oils, including fuel oil, and (2) gasoline, naphtha and other light distillates. Imports of topped oils in 1931 amounted to some 25,000,000 bbls., a decrease of about 4 per cent from 1930, but an increase of about 22 per cent from 1929. Imports of gasoline, naphtha and other light distillates in 1931 amounted to some 13,600,000 bbls., a decrease of 20 per cent from 1930, but an increase of about 54 per cent from 1929. These imports were predominantly from the Netherland West Indies where as before stated modern refineries have been constructed in recent years for refining crude obtained from Venezuela.

The decrease in the value of imports is substantially greater than the decrease in their quantity.

Exports of Petroleum

As compared with 1930, exports of crude petroleum, in 1931, increased in quantity but decreased in value; as compared with 1929, the 1931 exports decreased both in quantity and value. The exports of advanced and refined oils in 1931 showed a very substantial decrease both in quantity and in value when compared either with 1929 or 1930.

The total domestic exports of crude petroleum increased from some 20,937,000 bbls. during the first 11 months of 1930 to some 23,430,000 bbls. during the corresponding period in 1931, but during the same time the value decreased from some $28,700,000 to about $19,130,000—a decrease of 33 per cent.

The increased quantity of crude exported was due to exports from Gulf Coast ports, chiefly from the Sabine district (Beaumont-Port Arthur), where the principal pipe lines from the new fields in East Texas reach the coast. The exports from the New Orleans, the Sabine and the Galveston districts during the first 11 months of 1930 and 1931, respectively, were as follows:

CRUDE PETROLEUM EXPORTS

	Customs districts		
	New Orleans bbls.	Sabine bbls.	Galveston bbls.
Jan.-Nov., 1931	956,589	3,335,459	2,373,030
Jan.-Nov., 1930	404,335	308,732	1,334,263
Increase	552,254	3,026,727	1,038,767
	Per cent		
Rate of increase*	137	980	89

*Approximate.

The decrease in domestic production of crude oil, and in imports and exports of crude oil and refined products combined in 1931, indicates that domestic refiners

(Continued on Page 90)

DOMESTIC EXPORTS OF CRUDE PETROLEUM AND REFINED PETROLEUM PRODUCTS, 1929, 1930 AND 1931

Product—	Barrels of 42 gallons			Value		
	1929	1930	1931*	1929	1930	1931*
Crude petroleum	26,394,349	23,704,162	25,535,159	$37,799,683	$32,153,377	$20,827,852
Advanced and refined oils:						
Gasoline, naphtha and other finished light products	60,006,674	63,195,331	43,786,519	266,903,923	250,646,784	109,301,417
Illuminating oil (kerosene)	19,820,352	16,689,684	12,534,130	83,797,818	63,325,252	34,795,880
Lubricating oils†	10,775,091	9,849,448	8,049,259	104,927,039	90,538,134	63,801,881
Gas and fuel oil	35,714,784	32,377,758	26,588,187	37,199,685	33,219,574	23,966,094
Mineral spirits (substitute for turpentine)	60,238	55,357	50,762	553,879	464,948	408,325
Residue (including road oil)	34,958	22,909	20,597	147,150	61,415	75,923
Total advanced and refined	126,412,097	122,190,487	91,029,454	$493,529,494	$438,256,107	$232,349,520
Lubricating greases‡	116,692,292	99,273,207	74,080,474	$6,111,193	$5,404,620	$3,541,078
Paraffin wax‡	319,275,709	292,932,142	290,484,394	14,073,860	10,479,727	8,424,987
Candles‡	1,066,354	840,383	653,547	255,917	189,756	155,015
Petrolatum‡	7,073,468	11,031,769	11,064,280	926,287	922,544	758,441
Petroleum asphalt§	428,039	366,419	257,231	8,542,975	7,277,032	4,940,611
Petroleum coke§	115,820	88,098	49,979	1,133,957	768,372	395,071
Total value	.....	.....	.....	$562,373,366	$495,451,835	$271,402,575

Source: Bureau of Foreign and Domestic Commerce.
*Preliminary figures. †Includes "red and pale," "black," "cylinder," "insulating or transformer," and light lubricating oils in small packages. ‡Quantity in pounds. §Quantity in long tons.

Review of Latest Eastern Gas Field

Wayne-Tioga Field in New York and Pennsylvania, Producing From Oriskany Sand, Will Soon Have Big-City Market

By J. French Robinson
Manager Lycoming Natural Gas Co.*

The discovery of natural gas in a well near Bolivar in the township of Wirt, Allegany County, New York, on September 11, 1928, and in the Wayne-Tyrone Field, township of Tyrone, in Schuyler County, New York, in March, 1930, started an active leasing campaign throughout southern New York which extended on a small scale into northern Pennsylvania.

About the middle of September, 1930, the Allegany Gas Co. brought in its No. 1 Palmer, in Farmington Township, Tioga County, Pennsylvania, with an open flow of approximately 15,000,000 feet of gas a day. This location being in wildcat territory, the gas company has not cased the well, and was not prepared to take care of a well of this size, hence it was allowed to blow open for many days. The roar of this well could be heard for many miles. The discovery of gas in the northern part of Pennsylvania attracted operators both large and small, and by the first of January, 1931, practically all the land in Tioga, Potter, Bradford, Susquehanna, Cameron, Clinton and Lycoming Counties was under lease.

On the Booth farm in Hebron Township, Potter County, Pennsylvania, the Hungiville Oil & Gas Co., on December 3, 1931, drilled in a well having an open flow of 9,000,000 cubic feet of gas a day. The well was shut down after drilling only a foot in the sand. No preparation had been made to care for a well of this size and it blew open for two weeks before the operators were able to shut it in.

All of the above-mentioned gas production is from the Oriskany sandstone.

Many Earlier Tests

Prior to the discoveries mentioned above, many deep wells had been drilled in southern New York state through the Oriskany sand horizon in prospecting for salt. No gas, however, was encountered in these tests. Gas and oil from the shallow sands have been produced in Potter and Tioga Counties since 1884.

The Tioga County Field is approximately 200 miles from Pittsburgh, 110 miles from Syracuse, N. Y., and 90 miles from Bradford, Pa.

Big Mapping Job

A great handicap at the beginning of this development was the fact that no farm line maps of the territory were available. It was, therefore, necessary for the operators to make maps. However, this could not be done in time to assist in the leasing and the preliminary geological work. There are now available maps which were made by combining actual field work and using aerial photographs. The maps are to the scale of 1 inch to 1,320 feet, and are in sheet units of 30 to 30 inches of arc, each covering 49 square miles. Approximately 10,000 square miles of prospective territory had been mapped to date. The aerial mapping in Pennsylvania was done by the Curtiss-Wright Flying Service, and in New York by the Aerophotograph Corp. of America.

The topography of northern Pennsylvania is rugged. Many streams have cut through the mountains and have formed deep gorges. The elevation above sea-level in the valleys is 1,000 feet, while on some of the mountain tops the elevation exceeds 2,600 feet. Prior to the discovery of these new gas fields, there had been little geological work done in this section of Pennsylvania and New York. The geological structure of portions of Potter and Tioga Counties in Pennsylvania has been published since 1903 in the Gaines, Elkland, and Tioga quadrangles, and this represents the only detailed work published regarding this territory except the U. S. Geological Survey Watkins, Glen and Catatonk folios in New York.

Most of the rocks outcropping in this region and those encountered by drilling are of the Devonian age. Because of the general south and southwest dip of the strata in this vicinity, a detailed examination of almost the entire section of Devonian rocks can be made from outcrops found between the northern boundary of Pennsylvania and the outlets of Lake Seneca and Lake Keuka in New York. Excellent exposures of the Devonian rocks can be seen along the shores of these lakes and in the adjacent ravines, and they have been studied for many years.

Once an Inland Sea

Northern Pennsylvania and southern New York, as well as the larger part of the entire Appalachian region, was once the site of an inland sea, varying in depth and extent throughout geologic time, but always depositing sediments of varying character on its bottom, A disturbance took place which raised the land and produced the Appalachian Mountains, and at the same time caused much buckling and twisting beneath the surface.

These marine sediments are important as sources of oil and gas in nearly every known field. All of the required conditions for the accumulation of oil and gas are present in this area. These are:

1. Source beds, such as sediments from which the oil or gas is, or might be, extracted.

2. Reservoir rock, or a bed of sufficient porosity to be capable of holding oil or gas within it.

3. Favorable geologic structure for the trapping of the gas, such as a dome or a high point underground, into which the oil or gas may migrate up the bedding planes and eventually be collected.

4. A cap rock of impermeable nature so that the upper migration through the porous rock may be stopped.

The dome type of oil and gas pool is the most common structural type.

The well recognized geological horizons are the base of the Catskills (Red Beds), the Tully limestone, the Onondaga limestone, and the Oriskany sand. However, the intervals between these definite markers are somewhat irregular. The most definitely known horizon above the Oriskany sand is the Tully limestone. The thickness of the Tully limestone varies from 80 to 90 feet and it lies approximately 1,000 feet above the Oriskany sand, from which fact it is locally called the "thousand-foot lime."

The interval between the Tully limestone and the Oriskany sand varies from 941 feet at the No. 1 Charles Hoyt in Farmington Township, Tioga County, Pennsylvania, to 1,370 feet in the No. 1 F. A. Ashley, a dry hole in Clymer Township, Tioga County, Pennsylvania. The Onondaga limestone caps the Oriskany sand and has a thickness of from 25 to 35 feet. The formation between the Tully limestone and the Onondaga limestone is black shale. In some of the wells drilled down the slopes of the anticline the Tully limestone has been mistaken for the Onondaga limestone, but after drilling a short distance into the lime the facts were soon revealed.

Oriskany Pay Sand

The Oriskany sand, which is the producing horizon in the Wayne-Tyrone, Tioga, and Hebron Fields, is located at the base of the Devonian system and immediately below the Onondaga limestone. At its outcrop the Oriskany sand is very irregular and is a fairly coarse grained, somewhat loosely cemented sandstone. Small quartz pebbles are found throughout the lower part of the horizon. The principal cementing media of this sandstone are calciate and silica. Immediately below the Oriskany sand is the Helderberg limestone. The Oriskany sand outcrops at Oriskany Falls, N. Y., and has a thickness of 10 to 12 feet. It also outcrops at Yaugers Wood in Cayuga County, New York, where it shows a thickness of 26 feet.

From a study of well logs, the thickness varies from 5 to 50 feet in different localities. The places where it is apparently missing include southwestern Cortland County, New York, and southeastern Tioga County, New York, and to date no sand has been encountered in southern Bradford County, Pennsylvania.

All Gas Wells on Structure

All of the producing wells from the Oriskany sand horizon have been located on structure. The production in the Wayne-Tyrone Field in New York, and in the Tioga County Field and the Hebron Field in Pennsylvania, forms quite a contrast with production in other portions of the eastern field. In southwestern Pennsylvania and in West Virginia some 48 gas-producing horizons are encountered, and production is obtained on the crest of the anticline, along the slopes, and even in the synclines; while in the above-mentioned fields no production has as yet been found except in wells located near the crests of the anticlines. All production, to date, in northern Pennsylvania has been obtained from the Sabinsville anticline in Tioga County, and the Hebron anticline in Potter County, while the production in New York is on the Fir Tree anticline. Unfortunately, all wells which are located on the anticlines have not proved to be producing wells. This is accounted for in two ways, namely, faulting and sand conditions.

Geological Features

Many faults have been encountered in this development, some large and some small. The largest of these is the one starting southwest of the discovery well, passing between the No. 1 Palmer and the Kemp dry hole extending northeasterly through the D. C. Smith dry hole 165 and the No. 2 Farr dry hole swinging in an easterly direction, passing through the dry hole on the Boom farm and the dry hole on the Herrington farm, then extending eastward between the dry hole on the Middaugh farm and the Tremaine well. Several minor faults are detected running nearly at right angles to this major fault. Due to this disturbance, many dry holes were drilled on what seemed to be perfect locations. In the early stages of development it was doubtful whether any faulting existed. After several wells had been drilled and faults were encountered, a more detailed study was begun. Quite a large amount of geophysical work (by seismograph) has been done, and it is believed that this type of work will do much to eliminate dry holes by pointing out positions of the faults and determining more accurately the crests of the anticlines.

Cable Tool Drilling

The drilling in this field is being done by the standard cable tool method, using an 80-foot derrick. The cost of the aver-

(Continued on Page 75)

*Read before the Engineers' Society of Western Pennsylvania at Pittsburgh on January 26.

STOCKS OF ALL OILS INCREASED 3,046,000 BARRELS IN DECEMBER

WASHINGTON, D. C., Feb. 8.—According to the Bureau of Mines report for December stocks of all oil increased 3,046,000 bbls. to 621,984,000 bbls. In the previous month stocks of all oil increased 2,762,000 bbls., while in December, 1930, they declined 6,377,000 bbls. to 665,497,000 bbls.

Stocks of gasoline increased 4,183,000 bbls. to 42,320,000 bbls. as compared with an increase of 2,340,000 bbls. in November and an increase of 1,836,000 bbls. in December, 1930, to 40,541,000 bbls. Production of gasoline totaled 36,051,000 bbls. as contrasted with 36,137,000 bbls. in November and 34,472,000 bbls. in December, 1930.

Crude oil production totaled 73,174,000 bbls., daily average of 2,360,000 bbls., compared with 72,851,000 bbls., daily average of 2,428,000 bbls. in November and 66,792,000 bbls., daily average of 2,160,000 bbls. in December. 1930.

Daily average production of crude petroleum decreased in December due to the introduction of Sunday shutdowns late in the month, the bureau reports. Practically the entire decrease of 68,000 bbls. daily was recorded in Texas, particularly in the East Texas Field.

December daily average runs to stills of crude petroleum were 2,346,000 bbls., a decline of 33,000 bbls. from the previous month.

Motor fuel output continued to decline and exports of motor fuel showed a material reduction, to the lowest point since 1925. Stocks of motor fuel showed a continued increase.

At the current rate of domestic demand, the December motor fuel stocks rose to a figure representing 39 days' supply against 34 days' supply at the end of the previous month and 37 days' supply on hand a year ago.

Total new supply of all oil amounted to 84,001,000 bbls. daily average of 2,710,000 bbls., as compared with 82,574,000 bbls., daily average of 2,752,000 bbls. in November and 79,463,000 bbls., daily average of 2,563,000 bbls. in December, 1930. Total demand for all oil aggregated 80,955,000 bbls., daily average of 2,611,000 bbls., compared with 79,812,000 bbls., daily average of 2,660,000 bbls. in November and 85,840,000 bbls., daily average of 2,769,000 bbls. in December, 1930.

Following table shows total supply of gasoline and total demand in thousands of barrels:

	December		12 months	
	1931	1930	1931	1930
Production ..	36,051	34,472	437,888	440,728
Imports	793	964	13,621	16,927
Total new supply ..	36,844	35,436	451,509	457,655
Dom. demand	30,529	29,213	403,313	394,800
Exports	2,691	4,387	45,832	65,575
Ttl. dema'd	33,220	33,600	449,145	460,375
Stocks	42,320	40,541	42,320	40,541
Increase in stocks	4,183	1,836	2,364	*2,720

*Decrease.

The refinery data in the report was based on figures from 344 refineries with an aggregated daily crude oil capacity of 3,687,910 bbls., covering practically all operations during the month. These refineries operated at 64 per cent of their recorded capacity in December as compared with 357 refineries operating at 64 per cent of capacity in November.

Crucial Period in Soviet Oil Industry

Claim Is Made Russian Government Must Increase Its Expenditures Greatly to Obtain Results Desired

By F. T. Kapcevitch
Engineer E. T. Lg.

Some very important modifications were introduced during the year 1931 in the development of the Soviet oil industry and the policy of the Soviet petroleum products export. In view of this gradual and continuous reorganization the present situation—the consequence of a long transformation process, accomplished in several years—could not be considerably modified, otherwise than after a similar working period of many years. However, the actual information and documents secured from quite a competent and responsible source permits us not only to illustrate the operation of the Soviet oil industry in the past and to describe its actual conditions, but also to make a general prognosis for its future. Moreover, the oil industry and the petroleum products trade—one of the main resources that the Soviet government possesses for securing the foreign currency—receive the greatest attention of the central economic institutions of the U.S.S.R. Consequently the present study seems to be of a certain general interest.

Must Increase Investment

In view of the difficult financial position of the Union the Soviet government was obliged to strive to accomplish the five-year plan program with minimum capital investments. In reality, however, quite an opposite investment policy must be adopted as a result of an underestimate of capital construction cost and that of the production cost; thus not only the absolute investment must be increased, but also the relative one (per the unit of the production obtained). This necessity is conditioned by the following circumstances: (1) The accomplishment on a huge scale of prospective drilling with the purpose of discovering some new oil fields and—some deeper (expensive) exploitative drilling in the old areas, necessitated by the exhaustion of the upper levels; (2) the accelerated construction of new refineries and cracking plants, caused by the increased yields of crude oil and especially by the development of the refining process (production of cracking gasoline, lubricating oil, asphalt and other residues), and, finally, (3) the creation of a great number of new transportation means and the re-equipment of the most part of the old ones.

In spite of the considerable increase of the production program, in comparison with the last year figures, the financing of the "capital construction" was scarcely increased, and even, in some separate sections reduced. Thus in 1930 the total investments in the oil industry attained approximately the sum of 300,000,000 roubles; for the year 1931 the sum of 330,000,000 roubles was assigned (against the amount of 956,000,000 roubles required in accordance with the former estimate). The main oil trusts, which support the largest part of the production, received during the year 1931 smaller appropriations than those of the previous estimates of the year 1930 and those of the actual expenditure for the same period, as follows:

Trusts—	1931 investments in roubles	1930 actual expenditure in roubles
Azneft	135,200,000	145,500,000
Groznoft	72,300,000	73,700,000
Embanneft	9,300,000	14,000,000

No New Fields Found

The necessity of further oil prospecting enforcement becomes now still more pressing than two years ago, in view of the fact that during all this period, in spite of more intensified work—all efforts, either to enlarge the existing oil ponds, or to find any new rich oil fields, capable of replacing some of the old ones, failed.

Under these circumstances the allotment of the oil output program among the various areas had to be radically changed, the result being that all the bulk of the production was loaded on the Caucasus region and on the old fields mainly. The figures of the output program by separate trusts are reproduced in the following table:

Trusts—	Tons 1931	1932	1933
Azneft	14,800,000	20,000,000	24,000,000
Groznoft	9,650,000	10,600,000	12,300,000
Benoy	.....	200,000	1,000,000
Terek	.....	50,000	300,000
Embanneft	400,000	400,000	1,000,000
Mayneft	1,200,000	2,600,000	3,600,000
Kouban	.....	.....	400,000
Sredasneft	160,000	400,000	800,000
Sakhalinneft	240,000	500,000	1,200,000
Tourkmenneft	25,000	50,000	100,000
Ouralneft	.....	.....	200,000
Gruzneft	.....	.....	200,000
Daghestan	.....	.....	100,000
Total	26,500,000	25,000,000	46,000,000
Total (oil and gas)	*27,500,000	36,600,000	48,400,000

*The actual output for 1930 was 15,900,000 tons. The total oil production for 1931 (based on the preliminary data) attained about 22,300,000 tons.

This new geography of the oil output greatly complicated the exploitation and contributed to a still less feasible character of the production program foreseen for the old oil fields, and at the same time to that of the entire plan. Such a speedy and considerable output increase, as required by the plan, could be obtained by an intensive exploitation of fountain levels only. These means have been largely employed since 1930, when the yields were rapidly progressing, under the risks of a precocious flooding and at the expense of the most productive fountain wells.

Decline Expected

The instability of the output and the failure to fulfill the program during the last year's exploitation can be explained by the very fact that the largest part of oil is yielded by the few high productive wells, whose output indicates some important oscillations, while the wells of poor capacity and the mechanically stabilized production are but secondary factors. In the very near future and at a certain extent even at present, owing to the natural decrease of some high productive wells' output the entire oil production might suffer from very noticeable oscillations. The confusion of this situation is being aggravated by the fact that the designs of the Soyouzneft board to limit the exploitative drilling in view of its concentration on the most productive districts, dictated by the lack of materials, equipment, etc., during the year 1931 were not only applied, but practically overpassed.

According to the preliminary data the drilling accomplished during the entire year 1931 attained a total of 691,000 meters. For the last several months the work was carried out in especially unfavorable conditions that contributed to the falling of the general level of drilling operations, these last ones having fallen below the margin of the year 1930.

In examining the importance of the drilling accomplished, the increase of the depth of the drilling is to be taken into consideration, consequently the absolute increase of the drilling process does not imply necessarily an increase in the number of wells. Thus, for Baku area the exploitative drilling operations, being increased with every year and per 1,000 tons of output are to attain during the five-year period (1929-1933) in average and by program—42 meters, which would be equivalent to the 40 per cent increase over the average figure of the previous five years' period. As far as the Azneft is concerned, the drilling program has been executed (first six months of 1931) to the extent of 75.7 per cent (254,000 meters); while the number of new wells indicates only 59.9 per cent of the plan figures (289 wells). These results slightly exceed the last year's level.

Considering the deficiency of drilling, the absence of equipment in already opened oil fields, the incertitude about the available reserves and the instability of the oil yields at present, it must be recognized, that not only the increased requirements of the 1931 program, but even its more modest variation, established in 1930, appear to be scarcely possible of realization.

It should be noticed that the plan variation of 1930 was based, more or less, on controlled calculations, which cannot be said about the latest modification, the figures of that one being mostly established in virtue of a mere assurance that "it must be so in accordance with the superior orders," and no actual preparations for the accomplishment of same were yet made.

That the maximum of oil production can be figured at 30,000,000 to 32,000,000 tons, above which limit the output of Soviet Union will under no circumstances be able to climb for the next two years, is proved by all available data. Probably, in reality the oil output will not attain even the shown figures. The operation of the petroleum industries during the year 1931 indicated a tendency to drop and failed to justify the figures of the plan, in all its branches. The table below gives the figures concerning the operation of the Soviet oil industry for the year 1931, in comparison with the results of 1930:

1930—	Output, tons	Refining, tons	Drlg., meters
First half year	8,245,000	7,212,000	298,600
Second half year	10,655,000	8,966,000	342,100
1931—			
First half year	10,521,000	9,253,000	375,020
Third quarter	5,939,000	5,212,000	192,000
Fourth quarter	5,840,000	5,200,000	120,000

The analysis of the oil industry operation during the last year shows that at present the natural margin of the oil output has been reached, and there are no reasons to expect its ulterior development, unless the corresponding new capital investments could be made. For the next few years, owing to the investments' reduction the development of the oil output will be either considerably slowed, or completely stopped. All the operations during the year 1931 were going on unsatisfactorily, the new construction work was not sufficiently accomplished to assure the ulterior increase of the output and of the refining. The introduction of the quality indexes was a peculiar feature of the last year's operation. The general disorganization of the oil industry—the direct consequence of all these causes—followed; and it can explain, for instance, why the already existing units were working less satisfactorily than in the past.

The difficulties which arose during the year 1931, in oil industry as well as in other branches of the Soviet economy, added to the great deficiency of financing, lately forced the oil industries board to give in December, 1931, a new program, considerably reduced in comparison with the previous variation, for the year 1932. Thus, for example, the output for 1932 is now fixed at approximately 28,000,000 tons and the refining at about 26,000,000 to 27,000,000 tons. Meanwhile, with the more than proportional reduction of financing, and taking into consideration the results of drilling and other operations for the year 1931, one has to admit that the new reduced program for the current year can scarcely be fulfilled.

FLOODS DELAYED DEVELOPMENT WORK DECREASING COMPLETIONS

Operations east of California started off the year in a quiet way. In January only 928 wells were completed with an initial production rated at 169,689 bbls. There were 177 dry holes completed and 124 gas wells drilled. In new work there was a gain of 36 in new rigs and a falling off of 72 in wells drilling, a net decrease of 36 in field operations.

Flooded conditions in East Texas had something to do with the decline in field work. A part of the East Texas area was inundated and the flood waters were so deep that it was impossible to complete wells or start or proceed with drilling in that part of the big producing area.

Following is the summary of the month's work:

SUMMARY OF ALL FIELDS
Wells Completed

	Comp.	Prod.	Dry	Gas
Eastern	150	623	15	34
Central Ohio	45	266	9	24
Lima	6	18	1	3
Indiana	17	180	5	9
Michigan	9	1,035	2	5
Kentucky	30	1,122	9	3
Illinois	6	3	3	0
Kansas	42	13,980	11	4
Oklahoma	62	56,497	25	11
North Central Texas	43	1,596	24	0
E. Cent. and E. Tex.	338	36,554	11	0
E. Texas gas field	3	0	2	1
West Texas	11	1,866	3	0
Panhandle Texas	14	1,504	0	6
Gulf Coast	56	31,429	18	3
Southwest Texas	50	4,995	16	8
North Louisiana	19	5,520	8	3
Arkansas	2	0	2	0
Mississippi	10	0	2	8
Montana	6	3,936	1	1
Wyoming	2	0	2	0
Colorado	5	0	5	0
New Mexico	7	8,565	3	1
Total January	928	169,689	177	124
Total December	1,068	169,391	204	129
Difference	140	298	27	5

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Eastern	47	157	204
Central Ohio	23	76	99
Lima	2	17	19
Indiana	4	58	62
Michigan	59	82	141
Kentucky	7	70	77
Missouri	0	1	1
Tennessee	0	14	14
Illinois	1	18	19
Kansas	30	130	160
Oklahoma	58	250	308
North Central Texas	47	121	168
E. Cent. and E. Texas	273	270	543
East Texas gas field	5	30	35
West Texas	8	83	91
Panhandle Texas	16	29	45
Gulf Coast	10	66	76
Southwest Texas	22	93	115
North Louisiana	12	53	65
Arkansas	8	27	35
Mississippi	13	10	23
Alabama	2	3	5
Montana	13	48	61
Wyoming	12	66	78
Colorado	12	71	83
New Mexico	6	47	53
Utah	1	19	20
Total January	691	1,909	2,600
Total December	655	1,981	2,636
Difference	36	72	36

Ups and Downs of 98 Major Oil Pools

Interesting Layout of Beginnings, Production Peaks and Declines. History of Woodbine Sand Pools in Eastern Texas

By James McIntyre

One of the questions foremost in the minds of present-day oil producers and refiners is when will the East Texas Field reach its peak of production—not its actual peak, but its potential peak. It is the biggest field in sight at the moment, and is getting bigger every day because it is only partly drilled and the wells completed are averaging 10 or more per day. No one can answer the question as to when the field will be over the top and definitely on the decline, but a study of 94 other pools that have been in the major class in the past seven years may assist in making it possible to judge what is to become of the Joiner, Kilgore and Longview Pools, which make up East Texas Field, after they have passed their peak. For example it is interesting to note that the Wortham Field, which bears some geological relationship to the East Texas Field, produced 16,024,035 bbls. on wide open flow in 1925 and only 2,834,207 bbls. in 1926. In 1931 it produced 148,646 bbls. In other words a field that produced over 180,000 bbls. one day in January, 1925, was down to 7,000 bbls. a day as an average for 1926. Mexia, Powell, Wortham, Van, and the three East Texas Pools are all producing from sand of Cretaceous age. Powell produced 17,218,874 bbls. in 1925, dropped to 10,379,485 bbls. in 1926 and was down to 1,362,278 bbls. last year. Mexia, an older field than Powell and which had dropped to 6,730,323 bbls. in 1925, had settled to 1,186,770 bbls. in 1931. Van has not reached its peak, and last year produced more oil than in 1930.

Going back to years previous to 1925 we find the Powell Field with a peak daily production of 354,893 bbls. in November, 1923, dropping to an average of 94,800 bbls. the next month. Powell is now producing 2,600 bbls. per day eight years and two months after its peak. The field was opened early in 1923 and produced 30,597,824 bbls. that year and 33,274,449 bbls. in 1924, dropping to 17,218,874 bbls. or about 49 per cent the following year. It was intensively drilled and the wells closely spaced—about 2½ acres to the well.

Mexia was opened in 1921 and produced that year 5,732,016 bbls. In the record of the next two years the production of the little Currie Pool was included with that of Mexia, and the two produced 35,347,217 bbls. in 1922; dropping sharply to 19,896,458 bbls. in 1923. In 1924 Mexia alone produced 11,585,058 bbls. falling to 6,730,323 bbls. in 1925.

All the Woodbine sand fields above named fell off sharply after reaching their peak, but the Van, Joiner, Kilgore and Lathrop Pools have not reached their peak of production, and it cannot be said when they will do so, therefore it is not possible to make any comparisons between them and the older fields. Limiting the production per well of the East Texas pools to a figure which will result in a total production not exceeding a stipulated quantity of oil per day, gives the field no opportunity to run wild, as Powell did. There are approximately 4,000 wells in the three pools at this writing and it is quite likely they could produce 2,000,000 bbls. in one day and could average 1,000,000 bbls. per day for a few days, but as there is no chance of their being permitted to flow wide open, it is idle to speculate on when the field will reach its potential peak of production. It is well within reason to believe that the producers in that field will hold it down to refinery demand as long as it is necessary to curtail it at all. We may never be able to say definitely when East Texas was at its height.

The East Texas Field, three pools, in practically its first year produced 107,727,912 bbls. The first three pools in the Seminole Field, Seminole City, Bowlegs and Earlsboro produced 120,574,573 bbls. in 1927 or nearly 13,000,000 bbls. more than East Texas produced last year. In their next year, however, the three Seminole pools named dropped to 75,367,724 bbls. and in 1929 to 49,015,585 bbls. or to about 40 per cent of their peak year production. The Seminole pools have had rare staying qualities. Few pools in the history of the oil business in the United States have held up month after month as the Wilcox sand pools of the Greater Seminole area. The Wood-

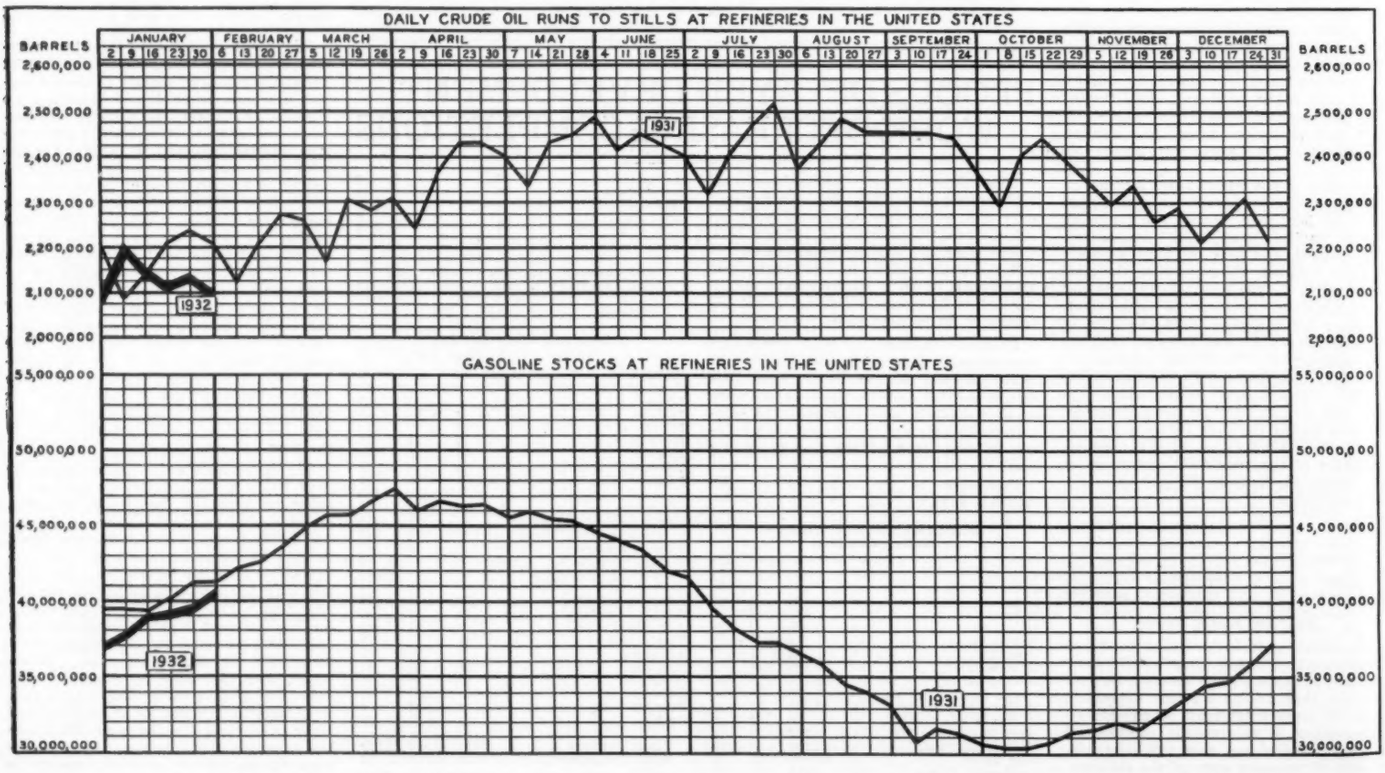
(Continued on Page 32)

AMERICAN PETROLEUM INSTITUTE WEEKLY REFINERY STATISTICS

The weekly report made to the American Petroleum Institute on refinery statistics—crude runs to still, gasoline stocks and gas and fuel oil stocks in barrels—for the week ending February 6:

	Week ending February 6				Week ending January 30				Week ending February 7, 1931			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	452,900	5,228,000	7,395,000	100.0	452,300	4,977,000	7,451,000	100.0	448,600	7,018,000	7,905,000
Appalachian	91.8	77,100	1,618,000	1,297,000	91.8	72,700	1,517,000	1,376,000	93.8	82,100	1,359,000	1,072,000
Indiana, Illinois, Kentucky	98.9	254,900	5,065,000	4,906,000	98.9	248,700	4,733,000	5,061,000	97.5	261,100	4,886,000	3,125,000
Oklahoma, Kansas, Missouri	89.6	206,900	3,560,000	2,527,000	89.6	204,700	3,483,000	3,707,000	89.4	236,700	2,921,000	3,844,000
Texas	91.3	476,300	8,862,000	10,710,000	91.3	503,400	8,826,000	10,851,000	91.9	510,000	6,976,000	9,908,000
Louisiana and Arkansas	98.9	143,400	1,245,000	3,987,000	98.9	148,200	1,365,000	4,035,000	98.3	138,000	1,698,000	2,320,000
Rocky Mountain	89.4	36,300	1,931,000	726,000	89.4	40,200	1,865,000	737,000	93.1	36,300	1,738,000	940,000
California	97.1	464,100	13,867,000	96,157,000	97.1	440,400	13,980,000	96,201,000	98.8	426,600	15,861,000	101,329,000
Total United States	95.2	2,111,900	41,376,000	128,705,000	95.2	2,110,600	40,746,000	129,419,000	95.7	2,139,400	42,457,000	130,943,000
Texas Gulf Coast	99.8	367,000	6,996,000	7,914,000	99.8	384,900	6,953,000	8,054,000	100.0	403,400	5,962,000	7,476,000
Louisiana Gulf Coast	100.0	95,700	1,089,000	3,137,000	100.0	100,600	1,233,000	3,184,000	100.0	100,600	1,502,000	1,329,000

(1) Per cent refinery capacity represented. (2) Daily crude runs to stills. (3) Gasoline stocks. (4) gas and fuel oil stocks.



All data based on weekly reports of the American Petroleum Institute. Figures for last week not shown in graph but are included in above table.

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The OIL and GAS JOURNAL

PRODUCING REFINING PIPELINE ENGINEERING MARKETING

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THE MOST PRESSING PROBLEM

To hear Washington talk you would think the biggest problem before the government is to add enough taxes to pay the bills.

But the country is waking up and will soon waken up Congress to the fact that the most pressing problem is cutting down governmental extravagance.

Congress is disposed to be sarcastic about each business opposing any additional tax on its own operations but why shouldn't it?

Why should the business of government be unlike any other business and in a time when every other business is cutting out unnecessary expense why should our political managers think only of larger appropriations instead of insisting on economies?

Congress will say we have got to meet the deficit but ordinary business with a deficit cannot levy an additional tax on its customers to pay it and has to balance outgo with income or go under.

If our political representatives could get the idea that running the government, whether federal, state or local, is simply the business of administering public affairs, instead of the game of politics, there would be a different story.

Today there are over one million persons on the federal payroll, one federal job to every 120 men, women and children. State, county and local governments would probably double that roll.

Leaving out the military services, the latest compilation showed a total of 732,460 persons on Uncle Sam's payroll. In 1910 there were approximately only 370,000 federal positions.

Yet were we not as well governed and as well served officially in 1910 as we are today? Many will say infinitely better because there was that much less intermeddling.

We have the swollen payroll not because of better service but because congress has listened to cliques of faddists, vocal minorities who have succeeded in fastening barnacle after barnacle upon the ship of state in the shape of bureaus and commissions and jobs that were welcomed by the politicians as so many excuses for new places for hungry constituents.

Some effort has been made by the administration to reduce appropriations but there are scores of places where the ax is needed instead of the pruning knife.

This is the condition of governmental business which led to the suggestion of a federal tax on gasoline although gasoline is today the most heavily taxed of all commodities.

The average state gasoline tax is 30.8 per cent of the retail price. It is higher than the wholesale price of gasoline at the refineries in the Mid-Continent area. And on top of that there is the production tax paid by the producer of the crude oil.

The following figures are taken from the very instructive address of W. R. Boyd, Jr., executive vice-president of the American Petroleum Institute before the Ways and Means Committee of the House of Representatives at Washington.

The 26,523,779 motor vehicles registered last year were valued at approximately $5,460,000,000. The aggregate tax paid by the owners amounted to $1,046,000,000 or 18.5 per cent.

This aggregate special or class tax upon the motor vehicle owner was about 10 per cent of all the taxes of all kinds collected in the United States by all governmental divisions.

And, remember, the motor vehicle owner also paid the same ordinary taxes paid by all other citizens.

The gasoline tax alone cost him $549,150,000 yet this proposed federal tax of a cent a gallon would take another $160,000,000 from motor vehicle owners.

Who pays the gasoline tax? asks Mr. Boyd and answers it thus:

Two-thirds of all car buyers have annual incomes of $3,000 or less. Ninety-three per cent of all cars sold last year had a wholesale value of less than $1,000 each. Eighty-five per cent sold for less than $750 and 65 per cent for less than $500. In other words, of the 1,900,000 new car buyers in 1931, 1,600,000 purchased cars costing less than $750 each.

The average price of all new cars sold last year was $768 and of trucks $824. More than 5,000,000 cars and trucks are owned by farmers. Eighty-five per cent of the commercial motor trucks were owner operated, 26 per cent by farmers.

Thus it can readily be seen, Mr. Boyd points out, that any federal tax on gasoline will fall most heavily on the farmer and the wage-earner, the men who can least afford it.

It has been said that the development of the automobile pulled us out of the after the war depression in 1920. The present depression has checked that development and now it is proposed to check it still more by increasing the cost of motor operation, thereby handicapping both the automotive and the petroleum industries in their efforts to return to prosperity.

The steel industry has been in the doldrums waiting for the resumption of motor car manufacture and the thousands of other businesses whose success is dependent upon the prosperity of the automotive, steel and gasoline industries are to be held back by a new federal burden.

On the other hand nothing would help business so much as a reduction in taxes. Years ago Senator Aldrich said $300,000,000 could be cut off federal expenditures without impairing the government service. How much more could be cut off today with all the incumbrances that have been added since his day.

There is a lot of talk in Congress about appropriating millions for the unemployed but how much of that unemployment could have been avoided if industry and business had not had to pay millions upon millions unnecessary tribute to politics.

There are now outstanding $1,151,820,000 of state highway and bridge bonds, 75 per cent to be met from state gasoline taxation which has financed most of the $20,000,000,000 spent on highway improvements in the past ten years. If that revenue is reduced by excessive taxation, what then?

The oil industry, the automotive industry and every other industry and business that will be hurt by this handicap on motor use should get out and fight. Every filling station should be made a bureau of information for the car and truck owner in sending protests to Congress. Every man in the oil business should make it his immediate personal business to let his representatives in Congress hear from him and from his friends.

There are more motor owners than there were voters for either presidential candidate last time. But Congress will pay no heed so long as they are silent. Let them individually notify Congress there must be no federal tax on gasoline and there will not be any.

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BRADFORD, PENNA.

Simplicity and Close Fractionation Feature New East Texas Plant

* * * * * *

By W. T. Ziegenhain

Compactness, simplicity and close fractionation feature the new topping plant of the Petroleum Refractionating Corp. at Longview, Tex. Designed to run East Texas crude produced locally, the unit will process 10,000 bbls. per day making a domestic aviation gasoline, a 437 endpoint naphtha, kerosene, gas oil and fuel oil. The flexibility of the fractionating column's control is so effective as to produce special cleaners' naphthas, mineral turps, etc., as desired.

At an early future date the Petroleum Refractionating Corp., owned by the Danciger Oil & Refining Co., will make additional improvements which will utilize the fuel oil and gas oil and supply sufficient light fractions to blend with the naphtha stream from the topping unit to completely balance the plant operations. The result also will be to produce motor fuels of high octane number.

The gasoline recovered from East Texas crudes is naturally high in antiknock value, the domestic aviation grade having an octane number above 62 and the blended naphtha stream ready for shipment as a motor fuel is above 57 octane number.

Data included here were taken from a test run covering an eight-day period during which time 72,000 bbls. of 39.5 gravity East Texas crude were run. The test run was for the purpose of ascertaining whether certain guarantees given by designers of the equipment had been met. After being on stream but three of the eight days, the unit was accepted. This is mentioned here to show the simplicity of control.

* * * *

Flow Chart of Unit

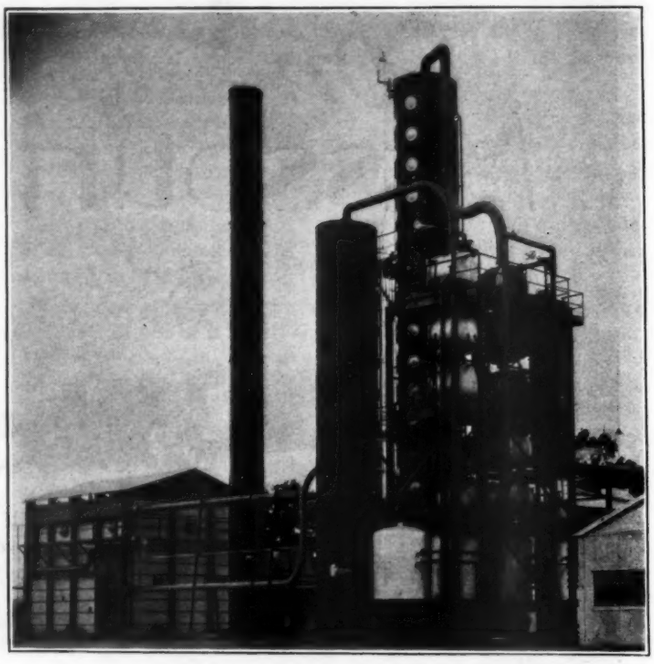
Briefly stated, the scheme of processing involves preheating the crude in exchange with the overhead vapors and the fuel oil bottoms while the final heating is done in a pipe still. The hot crude is flashed in a small tower where a light gasoline cut is taken overhead, and the topped crude then going to a larger tower where an overhead cut of naphtha is made along with side streams of kerosene and gas oil. A stripper tower for the kerosene completes the fractionating equipment.

The crude is received at the plant at about 74° F. After passing through a series of three vapor-to-oil exchangers, where heat from the overhead stream coming from the second tower is absorbed, the crude goes to the gas oil exchanger where the temperature is raised from 255° F. to 285° F. The crude then goes to a settling drum of sufficient size to permit any water or sediment to settle out. From the settling drum there is a vapor line going to the flash tower which relieves the drum of gas at any time there is a tendency of the liquid level in the drum to fall, due to excess gas pressure. This gas line is opened by a float in the settling drum.

From here the crude goes through two more exchangers where it picks up heat from the bottom and leaves these to go to the preheater coil in the pipe still at about 375° F. Some vaporization takes place in the preheater coils but the streams leaving the coil is practically the same temperature and enters the flash tower at about 375° F. By not heating the crude to its highest temperature at the beginning, that gasoline which is flashed off the first tower may be expected to be freer of gum-forming constituents.

A typical sample of the stream from

(Continued on Page 75)



General view of topping unit at the Petroleum Refractionating Company's new plant at Longview, Texas.

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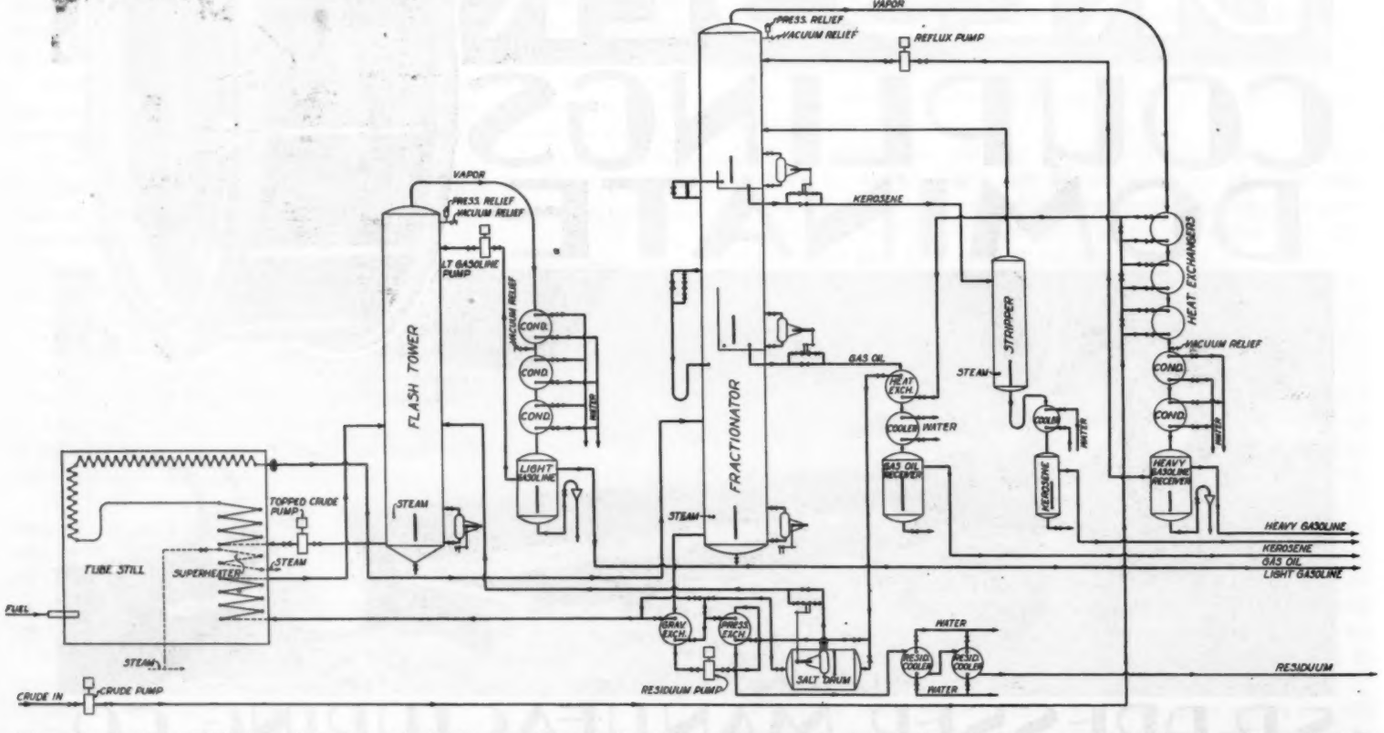
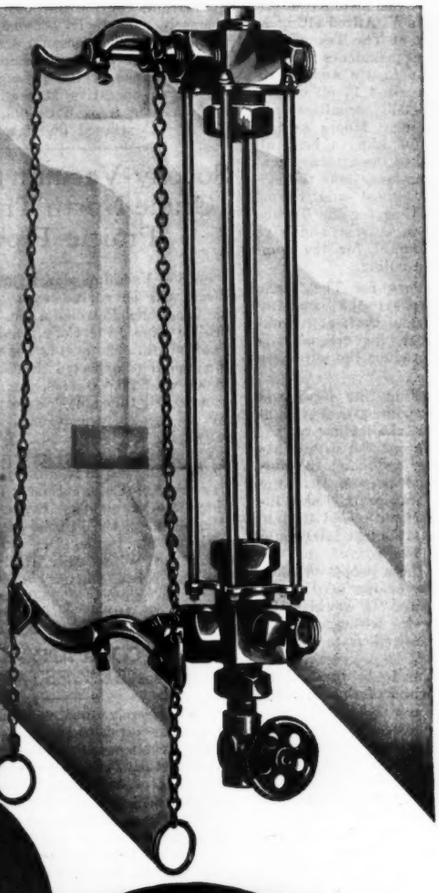


Flow chart of the 10,000-barrel topping unit in the Petroleum Refractionating Company's plant in Longview, Texas. Ample fractionating equipment has been provided to enable the company to manufacture special naphthas as well as domestic aviation gasoline, motor gasoline, kerosene and furnace oil. The refinery was designed and built by the Southwestern Engineering Corporation.

PENBERTHY PRODUCTS

WHERE SERVICE IS SEVERE USE THE PENBERTHY NAVY TYPE GAGE



THE Penberthy Navy Type Gage is of extra heavy construction throughout. Its dependable operation results from its exceptionally rugged design, careful workmanship and the fact that it is made from new metal. These are important reasons why this gage is so generally preferred in the refinery, the natural gasoline plant . . . in fact, wherever conditions are severe.

These characteristics are not peculiar to the Penberthy Navy Type Gage . . . they apply equally to Penberthy injectors, lubricating devices and other types of Penberthy gages. Penberthy Products are carried in stock by supply houses everywhere.

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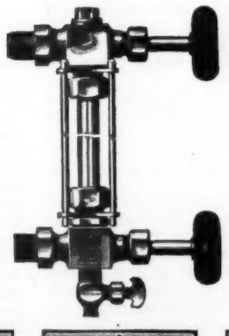


"SURE-DROP"

"SENTRY"

"SATURN"

"SCREW TOP"

"SILEX"

"SAMSON"

OUSTER DEFENDANTS TO AUSTIN; HUMBLE FILES ANSWER IN SUIT

AUSTIN, Tex., Feb. 8.—District Judge J. D. Moore Friday sustained his order of January 25, made at the instance of Attorney General James V. Allred citing R. C. Holmes, president of The Texas Company, and nine vice presidents of that concern to appear in Austin and testify in the State's case against 17 oil organizations for $17,850,000 penalties and ouster. However, Judge Moore said it was not expedient for him to hear all the testimony and asked the attorney general to have a commissioner take the evidence. Mr. Allred agreed and named February 15 as the time for the Texaco officials to appear in Austin and give their testimony. Counsel for the company excepted to the ruling.

Attorney C. L. Black for The Texas Company told the court the company had nothing to hide, and that, at reasonable times and places, his company is perfectly willing to produce the witnesses and papers.

"We think," he said, "the legal and proper course is to appoint a commissioner to go up there and take testimony."

He asserted, in the opening arguments to set aside the order requiring the out-of-state witnesses and papers, that the petition on which it was granted was insufficient under the statute, and that if it conformed to the statute, the law would be unconstitutional.

"It would require these people to come at their own expense, or the expense of the company," he said. "It would make us furnish the State its witnesses for a 'fishing expedition,' as well as to furnish our own witnesses.

"It would compel us to bring a lot of papers to satisfy a whim of the attorney general, and let him see if he could find anything to use in his case. . . . The federal constitution guarantees people against unreasonable search and seizure, and in the possession of their goods."

Among those Judge Moore commanded to be here to testify were President Holmes and Vice Presidents C. B. Ames, F. T. Manly, W. S. S. Rodgers, J. P. Gruet, H. W. Dodge and E. M. Crone, New York, and T. J. Donoghue and others, Houston.

Judge Moore suggested that the testimony before the commissioner start February 15 and that it was optional with the attorney general as to where it would be taken, Austin, New York or other reasonable place. The attorney general selected Austin. The court held that Mr. Allred was within his legal rights to have the witnesses summoned and to make them bring the documents with them.

The court told amici curiae representing the concerns that have not answered that he would not take default judgment against them pending further time for them to answer. This applies to the Standard of California, Standard of New Jersey and the Socony-Vacuum. The attorney general said the case against the Shell Union would not be pressed at present.

Judge Moore Monday appointed George E. Shelley, Austin attorney, as special commissioner to take testimony at Austin, of Pres. R. C. Holmes and the New York vice presidents of The Texas Company.

Humble Company's Answer

The answer of the Humble Oil & Refining Co. (which largely embraces the pleas of the various defendants), argues that the antitrust laws of the State are no longer constitutional and are invalid because in violation of the due process and equal rights clause of the Constitution of the United States, and in violation of Sections 3, 13, 15, 16, 19 and 21 of Article 1, of the Bill of Rights of Section 1 of Article 2 of the constitution of the State of Texas, in that (briefly):

1. Because of an existing provision in the laws exempting livestock and agricultural products in the hands of the producer or raiser.

2. Because of the existing provision of law that any person engaged in any kind of work or labor may lawfully associate themselves with other such persons to form trade unions and other organizations for the purpose of protecting themselves in their personal work, personal labor, and personal service in their respective pursuits and employments.

3. Because of the passage of the so-called "Co-operative Marketing Act," being Chapter 8 of Title 93, of the Re-

(Continued on Page 96)

Socony-Vacuum Ships Crude North Through Prairie Pipe Lines

Socony-Vacuum plants in the Middle West will be served with crude oil by the Magnolia Petroleum Co. through the Prairie Pipe Line Co.'s lines from Oklahoma north. Shipments have already begun and it is expected that later between 15,000 and 20,000 bbls. per day will be transported through Prairie pipe lines as far as the eastern termini of the company's lines.

The Magnolia will supply the Mid-Continent crude requirements of the Bartles-Maguire Oil Co. at East Chicago, Ind., which has a refinery capacity of 5,000 bbls. per day; the Lubrite Refining Corp. at East St. Louis, Ill., capacity 3,500 bbls.; the White Star Refining Co. at Trenton, Mich., capacity 6,600 bbls., and the same company's 5,500-bbl. plant at Wood River Ill.

BETTIS COMPANY KEEPS POLICIES ESTABLISHED

The aggressive business and engineering policies established by Roy H. Bettis in his development of the Bettis Sales Co., Houston, Tex., will continue to dominate that organization, according to the management, although the loss occasioned by his death on January 18 is keenly felt by his associates and by his hundreds of friends throughout oil fields of the country. Mr. Bettis, who was a pioneer in perfecting protectors for rotary drill pipe and casing, was active in the distribution of other oil-field equipment. He held an interest in the Bailey-Becker Co., which handles the Bettis protectors in Oklahoma.

Mr. Bettis so thoroughly organized the Bettis Sales Co. that its administration, it is said, will be carried on as before, with its wide business connections and contracts unaffected by his death.

EXPECT BIG DEMAND FOR OIL PUMPING EQUIPMENT

The Magnolia Petroleum Co. is standardizing all producing wells and newly completed wells on its leases in the East Texas district. Other companies have been standardizing their wells as they were completed, preparing them for pumping when this method of production is necessary. To equip 4,000 wells for pumping will require an investment of approximately $25,000,000.

A.P.I. DIRECTORS TO MEET

The board of directors of the American Petroleum Institute has been called by President Amos L. Beaty to meet at New York on Thursday, February 18, to consider a number of important questions now pending. The meeting will convene at 10:30 a. m.

TO FORM PAMPA CHAPTER

A chapter of the American Petroleum Institute will be organized at Pampa, Tex., in the Panhandle district, the evening of February 11. H. M. Blakeslee, of the Dallas office of the American Petroleum Institute, will make an address. J. E. Warren is temporary chairman of the meeting.

High Spots in Field News

ROCKY MOUNTAIN AREA

Greasewood test may make good well. Eight rigs being held for work in spring. Hobbs allowable 31,876 bbls.

SOUTHWEST TEXAS

Two likely looking wildcats. Magnolia test on Vacuum blocks in Jim Wells and Duval Counties are promising.

OKLAHOMA

Steady decline in pipe line nominations may lower production this month. Underproduced wells taken care of.

KANSAS

Ellsworth arch proves not dependable. Offsets to big wells may be dry. New producing area in McPherson County.

GULF COAST

Lost Lake test proves small gas well. Slight showing encourages hope it may make a producer. Sweet Lake deep test quit.

NORTH LOUISIANA-ARKANSAS, MISSISSIPPI

Eleven completions in three states and East Texas border counties. Sabine Parish development planned. Five locations at Zwolle.

EAST TEXAS

Allowable cut to 75 bbls. daily. Now 4,077 wells completed; 98 last week and 71 new locations. Three tests condemn large acreage in Upshur County.

CALIFORNIA

Curtailment weakening. Sales agency letter stresses necessity for immediate action. Court asked to limit gas output.

WEST AND NORTH TEXAS AND PANHANDLE

Five locations in West Texas, 12 in North Texas and 4 in Panhandle. Ector County most interesting spot in operations.

Late Fields

KANSAS

Vickers Petroleum Co.'s No. 1 Stoltenberg, NW cor. NE NW Section 22-16-10w, Ellsworth County, was preparing to spud. The test is located a quarter of a mile south of the Gypsy Oil Co. and others' 1,200-bbl. discovery well. The Derby Oil Co.'s well, a quarter of a mile north of the Gypsy Oil Co.'s well, averaged 1,515 bbls. a day for five days.

J. R. Robertson and Hinkle's No. 1 Stratman, SE cor. SW NE Section 1-17-10w, is estimated to be a 1,000-bbl. well with an estimated 4,500,000 feet of gas a day. The oil was found in the Siliceous lime at 3,266-71 feet. After it was swabbed down, making 43 bbls. of oil the first hour, the oil stood 800 feet from the bottom of the hole.

A wildcat test in Ford County was preparing to resume operations after being shut down all winter. The test is Swain and others' No. 1 in the C NW Section 21-25-24w. The total depth of the test is 5,105 feet.

Deep Rock Oil & Refining Corp. and others' No. 1 Pasek, C SE Section 3-14-11w, a wildcat in Russell County, found showings of gas at 1,800 feet and at 2,260 feet, where it was drilling deeper. The owners believe the showings of gas make the well more interesting than ever.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., Feb. 9.—S. R. C. Oil Co.'s No. 6-D Montemayor, a south offset to Daniels & Hill's No. 1 Montemayor in the Escobas Pool, is making salt water. Daniels & Hill's No. 1 Montemayor came in at about 200 bbls. per day. S. R. C. Oil Co.'s offset on the south first made a lot of oil and was estimated at 1,500 bbls. and the biggest well in the field but later developed trouble. Both wells are in the second sand at around 1,485 feet and are the farthest north tests in that sand.

Magnolia Petroleum Co.'s No. 1-B Duval Land Co. in northern Duval County, Survey 96, at 1,827 feet made about 1,000,000 feet of gas and is drilling deeper.

V. F. Neuhaus' No. 1 Tipps, in southern Karnes County, at 3,620 feet is being abandoned. Pettus sand was expected at 3,550 feet and at that depth it got sandy shale and a trace of gas.

EAST TEXAS

DALLAS, Tex., Feb. 9.—A check of East Texas by military authorities revealed 125 pumping wells in Joiner, 5 rigging up to pump, 9 dead, 16 agitating to produce; 16 pumping in Kilgore area and 3 dead; 9 pumping in Lathrop area, Gregg County, and 2 dead.

OKLAHOMA

The production from the Oklahoma City Field for the 24 hours ending at 7 a. m., February 8, was 44,466 bbls. from 110 wells. On February 9, it was 88,000 bbls. from 138 wells.

Mid-Continent Petroleum Corp.'s No. 1 Farmer, SE cor. SW NW, Section 2-6-4, a wildcat near Sacred Heart, in Pottawatomie County, which had water in the Wilcox sand at 4,418-21 feet, has been plugged back to 3,950-55 feet in Hunton lime where the casing ripped and it was showing oil.

Mid-Continent Petroleum Corp.'s No. 1 Archer, SW cor. SE SE, Section 14-6-3, west of the Asher Pool, in Pottawatomie County, found a showing of oil in sand at 3,518-30 feet.

Empire Oil & Refining Co.'s No. 1 Davis, C NW NE NE, Section 30-7-8, in the Fish Pool, in Seminole County, was given a potential of 3,234 bbls. in 24 hours. It flowed 1,617 bbls. in 12 hours from the pay horizon at 2,948-3,012 feet.

MAGNETIC STORM

Tucson, Ariz., observatory for the U. S. Coast and Geodetic Survey reports that a magnetic storm of severe intensity started at 1 p.m. (C. S. T.) on February 2 and ended at 1 a.m. (C. S. T.) February 5. The telegrams follow:

"Storm began second. Nineteen. Severe."

"Storm ended fifth. Seven."

East Texas Cut To 75 Barrels Per Well

District Has Produced 119,000,000 Bbls. Ninety-seven Wells Completed During the Week and 71 New Locations Made

By L. E. Bredberg

DALLAS, Tex., Feb. 8. — Governor Sterling of Texas on February 4 issued an order curtailing daily production of East Texas to 75 bbls. per well, effective February 5, making the seventh order issued by him in cutting back production in that district for the purpose of holding it below the 400,000-bbl. daily mark. The last previous order was issued December 11 cutting the wells from 125 bbls. per day to 100 bbls. per day. Production for the 24 hours ending at 7 a.m. February 4 was 383,092 bbls., or 17,000 bbls. below the maximum allowable mark for the district. Curtailing the wells to 75 bbls. will cut production almost 100,000 bbls. per day in the field, on the basis of 4,060 wells completed, or cut the production to 290,000 bbls.

The Magnolia Petroleum Co., one of the major purchasers in the field, preceded the governor's order with an announcement issued February 3, saying the company would take only 75 bbls. from each well to which it was connected, this order becoming effective at 7 a.m. February 4, also producing only 75 bbls. per well on its own leases.

Helps Unconnected Wells

This new cut in the allowable followed the request of many producers in the field asking that the allowable be cut to meet the demand for the oil and help correct the unconnected well situation, 80 completions per week adding each week to the number of unconnected wells in the district, the major purchasing companies having more connections than they desired, and consequently taking more oil than they cared to at the present time. Curtailing the production in the wells will promote ratable takings throughout the field, aid in overcoming the unconnected situation, and strengthen the market in the field, this cut leaving but little chance for distress oil being thrown upon the market below the present price of 83 cents per barrel.

For the period ending February 3 trunk line shipments increased over 31,000 bbls. per day over the previous week's daily shipments, while tank car shipments fell to 408 bbls. per day from the previous week's daily average of 2,050 bbls. Shipments to local refineries also increased from 15,070 bbls. daily as of the week ending January 27 to 17,548 bbls. per day for the week ending February 3, offsetting the decrease in tank car shipments.

Runs from storage averaged 17,840 bbls. per day, which would lead the producer to feel that East Texas oil was in demand regardless of the lack of desire to connect to more wells. Production for the week ending February 3 was 349,250 bbls. per day, an increase of only 3,906 bbls. per day over the previous week's average. Distribution totaled 367,090 bbls. per day, a difference of the 17,840 bbls. which were withdrawn from storage each day. With production cut below 300,000 bbls. per day the pipe line companies will no doubt increase their takings from storage in the district, until more wells are completed to bring production back to around 350,000 bbls. per day, or more.

Field's Output

Production of the field up to February 4, 1932, is reported as follows, the three producing areas all being linked by producing wells but segregated for the sake of showing the difference in withdrawals from the different areas:

	Bbls.
Joiner (first area opened)	40,220,266
Kilgore or Bateman (second area)	47,015,665
Lathrop (third area)	30,185,659
Total	117,421,590

The Lathrop area includes the Gladewater area of Gregg County, and also production to the north in Upshur County.

It is estimated by many that approximately 2,000,000 bbls. were produced before the governor shut in the field, without being accounted for, the land and royalty owners losing the royalties on at least this much oil. Adding this to the total quantity carried on production reports, would raise the total production to over 119,000,000 bbls., produced in 16 months' life of the field, or an average of over 7,000,000 bbls. per month. The Yates Pool, which is considered as the largest producing field in West Texas, and has been producing a little over five years, has produced approximately only 137,000,000 bbls., with only 402 wells in the field to date, or one-tenth as many as in the East Texas Field. This may serve to show the comparison between the two areas, and the difference in drilling and producing them.

Sunday Production

The East Texas Field report at 7 a. m., February 8, showed 4,077 wells completed, 984 producing, 27 shut down for physical reasons, 2,842 shut down Sunday, 224 failed to report; average 73.1 bbls. daily. Production 71,995 bbls. Pipe line runs 24,046 bbls.

Completions and Locations

There were 97 wells completed in the field during the week, an increase of 25 over the previous week, this increase due to many wells being completed which have been standing shut down because of high waters and the impossibility of getting in to produce them. Some of the wells have also been shut in for lack of pipe line connections, and have never been entered on the completion report because of this fact, connections given them during the past 10 days allowing them to be entered on the completion lists. There were 71 locations staked, only three more than the previous week's number.

Northern Upshur Well

Cranfill & Reynolds' No. 1 Rash in the Eubanks Survey, which extended production approximately 3½ miles farther north in Upshur County, when it was cleaned out last week and tested, is now shut down while pumping equipment is rigged up. The well flowed 185 bbls. during the first 12-hour period on production, showing but a very small amount of salt water with the oil, .3 of 1 per cent, but due to the bottom of the hole standing at minus 3,399 feet, or 79 feet below the water level of the field, it is considered in a precarious situation in this respect. The well will not be pumped at the present time, it showing up as a flowing well, the company only preparing it for pumping if production falls off in the near future. Total depth is 3,728 feet, and best sand body picked at 3,704 feet.

Eslick and others have staked an interesting location in the McKinney and Williams Survey, on the Whitehurst, approximately 4,000 feet north and east of Becker's No. 1 Barrett in the Witcher Survey, on the northeastern end of the Lathrop area, Upshur County. It is approximately 1¼ miles southeast of the Cranfill & Reynolds' extension well.

Stanolind Oil & Gas Co. abandoned its No. 1 Arthur Newsom in the Calvin Anderson Survey, on the Stanolind 17,000-acre block in Upshur County, at a total depth of 3,985 feet. Top of the Woodbine sand was logged at 3,834 feet or at a minus 3,436 feet.

Pilot Oil Co.'s No. 1 Ray in the A. H. Woods Survey, 4 miles west of Gilmer in Upshur County, is another wildcat which looks due to abandonment as it is now drilling below 3,980 feet in sandy shale, drilling dry Woodbine sand above this.

Tarr and Gillette's No. 1 Irions in the D. B. Lucas Survey, Upshur County, is shut down at 3,770 feet in sandy shale looking like another wildcat "duster" for the county.

These three tests condemn a large amount of acreage in Upshur County and apparently preclude the possibilities of finding another pool or extending production in that county.

Dunnigan and others' No. 1 Guest in the B. Barker Survey, 4½ miles southwest of the Stanolind dry hole, is shut down at 3,835 feet, due to start up again February 9. Surface elevation is 376 feet. It is not considered as having many chances for making a producer, and will undoubtedly be the fourth consecutive dry hole to be completed within a couple of weeks.

Rusk County Dry Gas Well

Stanolind Oil & Gas Co.'s No. 1 Ras Lacy in the J. H. Sparks Survey on the extreme southern end of the Joiner area, Rusk County, which came in last week making the second dry gas well for the field, and this immediate area will be plugged back to the gas sand at 3,604-08 feet after setting casing. The well was drilled to 3,650 feet where it cored hard sand the last 2 feet, the sand tasting salty and giving a precarious appearance to the well. Plugging back will prevent the possibility of water breaking in, and will save the well as a gasser. It made 19,000,000 feet of dry gas. It is 3,800 feet to the southwest of the company's No. 1 Peyton Brothers 60,000,000-foot gasser, the first dry gasser to be completed in the field.

Engineers Hold Meeting

In a meeting held at Dallas on the evening of February 5 by geologists and petroleum engineers who are in direct contact with the field, one geologist stated he believed the gas in this area to have been of the same origin as the oil found in the wells a short distance to the north, while another engineer considered it possible that the gas was coming from another sand, and accumulated at another period from that in which the oil was accumulated in the field. More wells drilled in this gas area, and between the gas producers, and the oil wells 2 miles to the north may prove just what has taken place in this immediate vicinity during the geologic ages, and depositions, and what is responsible for the wells making dry gas, and such large amounts. Other tests in this area will therefore be closely scrutinized to see what they will produce, and what can be expected in this southern end of the field.

The East Texas Field had produced approximately 112,000,000 bbls. to January 15. Pipe line runs totaled 73,128,000 bbls. There were 3,926,000 bbls. of oil used as fuel for drilling and pumping, 2,665,000 bbls. were in storage in the district, 23,340,000 bbls. had been shipped out by tank cars and 5,385,000 bbls. had been shipped to local refineries. There were 20 wells without pipe line connections on that date, and 120 were shut down by the military authorities for overproducing their daily allowable.

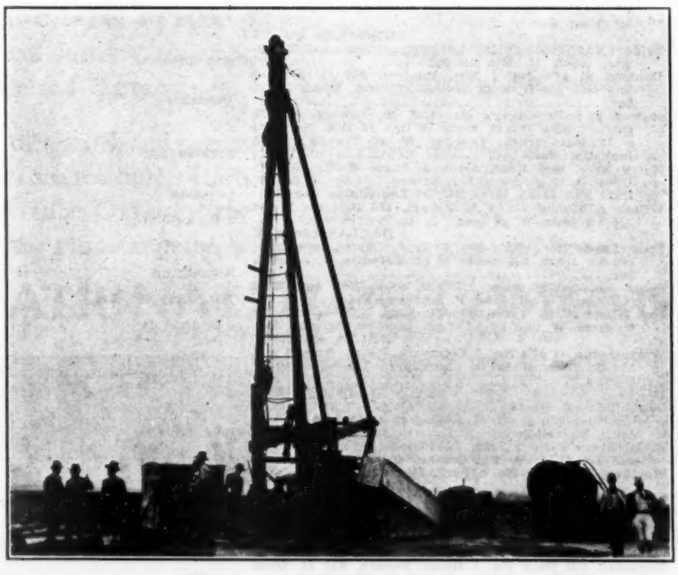
The Atlantic Oil Producing Co.'s purchase from Cranfill & Reynolds, reported in the February 4 issue of The Oil and Gas Journal, involved a net total of 1,395.12 acres, 32 producing wells and 3 drilling wells, with a consideration of $1,750,000 in cash and $1,250,000 in notes.

Dry Hole in Henderson

Another dry hole was registered for Henderson County when Alma Petroleum Co.'s No. 1 Wooldord in the Walters Survey, approximately 3 miles north of Athens, filled 100 feet from the top of hole with water when drilled to a total depth of 4,498 feet. Surface elevation is 431 feet, and Austin chalk was logged from 3,390-3,466 feet.

Falls County Well

C. C. Curtis' (Dixieland Oil Syndicate) No. 2 Davis, in the Pedro Zarza Survey, northern Falls County, East Central Texas, which showed up last week



Drilling machine over Dixieland Oil Syndicate's No. 2 Davis, wildcat discovery near Marlin in Falls County, Texas. Total depth of the well is 1,002 feet, and it is producing from the Georgetown lime.

as a 150 to 175-bbl. producer of 35 degrees gravity oil from the Georgetown lime, at a total depth of 1,002 feet, has not been tested to date. Six and five-eighths inch casing stuck 42 feet off bottom, and tanks have been set, and the owners have been cleaning out the well preparatory to bringing it in. It has been shut in, but leaking from between casing during the week, making about 33 bbls. per day. Due to the fact the well is sitting on a 4,012-acre block, that it looks like a small producer, and may be producing from a fault as this area is considerably faulted, there has been but little interest displayed in the area so far, although a few leases and some royalty has changed hands on acreage surrounding the large block held by Mr. Curtis. Marlin and Waco are headquarters for operators watching this well, and operating in this area.

Production in the East Texas district for the 24 hours ending at 7 a.m., February 5, was as follows:

Wells completed	4,048
Wells reporting production	3,860
Wells reporting no production	61
Wells not reporting	127
Production	372,400
Pipe line runs, fuel oil and runs to local refineries	382,529
Average per well	96.4

This was the last day before the new allowable of 75 bbls. per well per day went into effect. Production was cut to around 294,848 bbls. on February 5 by the new order. Sunday shut downs will be carried out as before the new order.

Smith County

The Sinclair Oil & Gas Co. completed its No. 2 Armanda Wiley in the James Jordan Survey, Smith County, the past week for a good producer. This has been an interesting test due to the fact it is located 1,100 feet east of the company's No. 1 Wiley which was at first abandoned after making mostly salt water, but was later plugged back and completed as a small producer. This second test topped the sand at 3,786 feet, and was compelted for an initial production of 50 bbls. of oil in 30 minutes through 1-inch tubing choke, total depth 3,788 feet. These two tests are the farthest producers in the Joiner area, located on the east side of the pool in Smith County.

Van Hearing Off

The Railroad Commission has indefinitely postponed the Van Field proration hearing originally set for February 11.

COMPLETIONS IN EAST TEXAS

Gregg County

Amerada Petroleum Co.'s No. 2 McPherson, top sand 3,519 feet, initial production 139 bbls. per hour through open tubing, total depth 3,536 feet. Arkansas Fuel Oil Co.'s No. 4-C Lathrop, top sand 3,595 feet, initial production 80 bbls. in 30 minutes through open tubing, total depth 3,620 feet; No. 1 C. L. Taylor, top sand 3,491 feet, initial production 100 bbls. in 30 minutes through open tubing, total depth 3,516 feet. F. P. Ash's No. 1 Tubbs, location abandoned. Cox and Hammond's No. 5 L. A. Rodden, top sand 3,577 feet, initial production 100 bbls. per day pinched, total depth 3,591 feet. H. W. Elliott's No. 2 J. W. Harrison, top sand 3,515 feet, initial production 100 bbls. per hour through open tubing, total depth 3,560 feet.

Empire Gas & Fuel Oil Co.'s No. 1 L. A. Jeter, location abandoned. Gregg Oil Co.'s No. 1-E T.&P., top sand 3,522 feet, initial production 30 bbls. in 15 minutes through eleven-sixteenths inch tubing choke, total depth 3,552 feet. Gresham and Hunter's No. 1-E T.&P., top sand 3,646 feet, initial production 160 bbls. per hour through three-fourths inch tubing choke, total depth 3,661 feet. Gulf Production Co.'s No. 5 Lacy, top sand 3,521 feet, initial production 110 bbls. per hour through open tubing, total depth 3,544 feet. Hankamer and Lee's No. 1 T. W. Lee, top sand 3,654 feet, initial production 90 bbls. per hour through three-fourths inch tubing choke, total depth 3,663 feet. Invincible Oil Co.'s No. 1 W. M. Wheeler, top sand 3,608 feet, initial production 101 bbls. per hour through open tubing, total depth 3,638 feet. T. A. Johnson's No. 2 J. H. Victory, top sand 3,540 feet, initial production 36 bbls. in 15 minutes through 1-inch tubing choke, total depth 3,662 feet.

Lloyd Oil Corp.'s No. 2 B. B. Fenton,

C. C. Curtis, wildcat operator, who brought in the discovery well in northern Falls County, Texas. Mr. Curtis has been operating in this county for several years, and has drilled numerous dry holes before hitting a producer.

top sand 3,689 feet, initial production 100 bbls. in 24 hours pinched, total depth 3,707 feet. F. L. Luckel's No. 1 J. B. Doby, top sand 3,523 feet, initial production 21 bbls. in 10 minutes through 1-inch tubing choke, total depth 3,650 feet. H. S. Moss' No. 1 Schultz, top sand 3,665 feet, initial production 156 bbls. in 30 minutes through open tubing, total depth 3,700 feet. Navarro Oil Co.'s No. 3 E. L. Walker, top sand 3,601 feet, initial production 17 bbls. in 15 minutes through open tubing, total depth 3,609 feet. N. G. Powell's No. 1 Wilhite, top sand 3,647 feet, initial production 100 bbls. in 45 minutes through 1-inch tubing choke, total depth 3,671 feet.

Roeser and Pendleton's No. 3 Sherfield, top sand 3,600 feet, initial production 100 bbls. in 33 minutes through open tubing, total depth 3,630 feet. Shell Petroleum Corp.'s No. 2 Basshorn, top sand 3,587 feet, initial production 31 bbls. per hour through 1-inch tubing choke, total depth 3,689 feet. Simms and Stanolind Oil & Gas companies' No. 2 Tuttle, top sand 3,562 feet, initial production 45 bbls. in 15 minutes through open tubing, total depth 3,590 feet. Stanolind Oil & Gas Co.'s No. 2-A E. L. Walker, top sand 3,553 feet, initial production 105 bbls. per hour through open tubing, total depth 3,579 feet; No. 11 Persons, top sand 3,494 feet, initial production 114 bbls. per hour through open tubign, total depth 3,554 feet; No. 3 Harley, top sand 3,572 feet, initial production 110 bbls. per hour through open tubing, total depth 3,589 feet. Sun Oil Co.'s No. 2 J. A. Grey, top sand 3,954 feet, initial production 30 bbls. per hour through one-half inch tubing choke, total depth 3,625 feet. Sutton and Hawkins' No. 4 J. H. Whittkaer, top sand 3,518 feet, initial production 100 bbls. per hour through 1-inch tubing choke, total depth 3,537 feet.

Tidal Oil Co.'s No. 2 Lake Deverna top sand 3,495 feet, initial production 70 bbls. in 20 minutes, through open tubing, total depth 3,532 feet. Woodley Petroleum Co.'s No. 1 D. B. Harris, top sand 3,512 feet, initial production 45 bbls. in one-fourth hour through three-fourths-inch tubing choke, total depth 3,529 feet. Byrd Frost and Atlantic's No. 1 N. B. Huey, top sand 3,587 feet, initial production 180 bbls. per hour through 2½-inch tubing choke, total depth 3,623 feet. California Consolidated Co.'s No. 2 Barton, top sand 3,560 feet, initial production 100 bbls. per day pinched, total depth 3,597 feet.

Gulf Production Co.'s No. 10 Hilburn, top sand 3,510 feet, initial production [illegible] bbls. per hour through three-fourths-inch tubing choke, total depth 3,522 feet; No. 13 A. Spear, top sand 3,539 feet, initial production 120 bbls. per hour through three-fourths-inch tubing choke, total depth 3,564 feet. Humphries and others No. 3 A. Spear, top sand 3,536 feet, initial production 100 bbls. per day pinched, total depth 3,585 feet.

Magnolia Petroleum Co.'s No. 4 Griffin Davis, top sand 3,608 feet, initial production 35 bbls. in five minutes through 2-inch tubing choke and 1-inch casing choke, total depth 3,614 feet; No. 3 O. Hilburn, top sand 3,723 feet, initial production 60 bbls. in five minutes through 2-inch tubing choke and 1-inch casing choke, total depth 3,725 feet; No. 6 B. Laird, top sand 3,593 feet, initial production 84 bbls. in one-fourth hour through 3-inch tubing choke and 1-inch casing choke, total depth 3,602 feet; No. 1 Laird-Crim, location abandoned. Mercury Oil Co.'s No. 1 I.&G.N. Ry., top sand 3,529 feet, initial production 100 bbls. per hour through tubing, total depth 3,590 feet. Mullendore and Berry's No. 1 W. W. Elder, top sand 3,568 feet, initial production 100 bbls. per day through open tubing, total depth 3,594 feet.

Pace Petroleum Co.'s No. 1 Crim-Reynolds, top sand 3,549 feet, initial production 100 bbls. per day, pinched, total depth 3,569 feet. Producers Investment Corp.'s No. 2 J. A. Butts, top sand 3,554 feet, initial production 60 bbls. per hour through 1-inch tubing choke, total depth 3,588 feet. Frank Russell's No. 1 Stone, top sand 3,763 feet, dry and abandoned, total depth 3,795 feet. Sam P. Sheburne's No. 2 Crim Mercantile, top sand 3,730 feet, initial production 75 bbls. per hour through open tubing, total depth 3,735 feet. Shell Petroleum Corp.'s No. 4 Bates, top sand 3,540 feet, initial production 100 bbls. per day pinched, total depth 3,620 feet; No. 6 Knowles, top sand 3,638 feet, initial production 2[illegible] bbls. in one-half hour through tapered tubing, total depth 3,647 feet. Sun Oil Co.'s No. 1 Calvin Brown, top sand 3,589 feet, initial production 176 bbls. per hour through open tubing, total depth 3,629 feet; No. 1 J. E. Rollins, top sand 3,561 feet, initial production 130 bbls. per hour through open tubing, total depth 3,590 feet.

Tidal Oil Co.'s No. 4 Bivens, top sand 3,620 feet, initial production 240 bbls. per hour through open tubing, total depth 3,636 feet; No. 2 Lacy, top sand 3,541 feet, initial production 540 bbls. per hour through tubing and casing, total depth 3,562 feet. C. J. Webster Oil & Gas Co.'s No. 1 Martin, top sand 3,715 feet, initial production 100 bbls. per day pinched, total depth 3,726 feet. Wells and Gann's No. 2 M. Charles, top sand 3,664 feet, initial production 100 bbls. per day pinched, total depth 3,672 feet.

Leon County

Sun Oil Co.'s No. 2 Grayson, dry and abandoned, total depth 6,018 feet.

Rusk County

Cordova Union Oil & Gas Co.'s No. 7 J. S. Bean, top sand 3,560 feet, initial production 100 bbls. per day pinched, total depth 3,640 feet. Peyton Brothers' No. 1 Perry, top sand 3,682 feet, initial production 59,000,000 feet of gas, total depth 3,718 feet. Empire Gas & Fuel Oil Co.'s No. 4 C. O. Christian, top sand 3,698 feet, initial production 96 bbls. in one-half hour through 2-inch tubing choke, total depth 3,718 feet. Gulf Production Co.'s No. 5 A. Laird, top sand 3,612 feet, initial production 102 bbls. per hour through three-fourths-inch tubing choke, total depth 3,627 feet. Magnolia Petroleum Co.'s No. 3 S. E. Brox, top sand 3,613 feet, initial production 37 bbls. in five minutes through 3-inch tubing choke and three-fourths-inch casing choke, total depth 3,648 feet. Mercury Petroleum Co.'s No. 1 Warren, top sand 3,748 feet, initial production 56 bbls. per hour through open tubing, total depth 3,763 feet, 10 per cent b.s. and water.

Roberts and others' No. 3 C. E. Christian, top sand 3,646 feet, initial production 132 bbls. per hour through three-fourths-inch tubing choke, total depth

(Continued on Page 74)

EAST AND EAST CENTRAL TEXAS WILDCATS

Week Ending February 8

ANDERSON COUNTY

Company, well, farm name, section and block— Remarks:

C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in 6½ of 129-ac. tract, M. Main Sur. .....S.D. 1,530 ft.

BOWIE COUNTY

Logan and Elliott's No. 1 J. W. Smith, 9,600 ft. S and 2,500 ft. W of NE cor. of survey, Chas. Lewis Sur...S.D. 4,503 ft.

W. S. Langford's No. 1 W. W. Whybark, 200 ft. from S and W of SW cor. of J. A. Dyer Sur. .....S.D. 1,880 ft.

Lee Timberlake et al's No. 2 Julius N. Tidwell, 655 ft. from E and 2,510 ft. from S of survey in L. M. Rice Sur. ..... S.W. on D.S. test; S.D. 3,012 ft.

CHEROKEE COUNTY

Bridges and Candler's No. 1 Berryman, center of Berryman tract, H. Kimble Sur. .....S.D. 1,000 ft.

Denman et al's No. 1 Mrs. Renfroe, 350 ft. N of S line and 330 ft. E of W line of farm, Uriah Moore Sur. .....Derrick.

Harper and Perkinson's No. 1 J. T. Lowery, 650 ft. from N line, 150 ft. from W line of Blk. No. 5 on a 139.6-ac. tract, 4 miles W of Troupe, C. B. Jennings Sur. .....Rigging up.

Merry Bros. and Perini's No. 1 Annie Kelley, 330 ft. from N line and 443 ft. from E line of 393-ac. tract and 90-ac. lease, M. De Los Santos Coy Sur....Location.

Wilson & Stubbs' No. 1 L. Robart, 450 ft. from S and 150 ft. from W of lease, J. B. Wolfin Sur. .....S.D. 2,035 ft.

DALLAS COUNTY

Long Creek Dev. Co.'s No. 1 T. J. Lupton, center of 160-ac. tract, 3½ miles N of Mesquite, J. Johnson Sur. .....Rigging up.

Paris' No. 2 Wilkinson, 3,787 ft. from NW and 3,241 ft. from SW of John P. Anderson Sur. .....T.D. 1,230 ft; S.D.

Joe Wilson's No. 1 fee, 600 ft. from N line and 600 ft. from W line of 1,500-ac. tr., Jno. Scroggs Sur...S.D. 1,150 ft.

DELTA COUNTY

Worthington et al's No. 1 Pejernett, 776 ft. from S and 150 ft. from W in E. Chick Sur., 1¼ miles W of Herton .....S.D. 3,315 ft.

ELLIS COUNTY

Clark Brooks' No. 1 C. W. Golliday, 300 ft. from S line and 300 ft. from E line of tract and survey, John Bones Sur. .....Drlg. 2,140 ft.

E. M. Roger's No. 1 John Lee Winn, 1,650 ft. from E and 150 ft. from S of Orland, Orlo Wheeler Sur. ...S.D. 1,435 ft.

Worthen Pet. Co.'s No. 1 Cerf, 2½ miles NE of Ennis..T.D. 2,264 ft.

FRANKLIN COUNTY

Tom Harper's No. 1 fee, 150 ft. from N line and 300 ft. from E line of 116-ac. tr., W. M. Dawson Sur...Derrick.

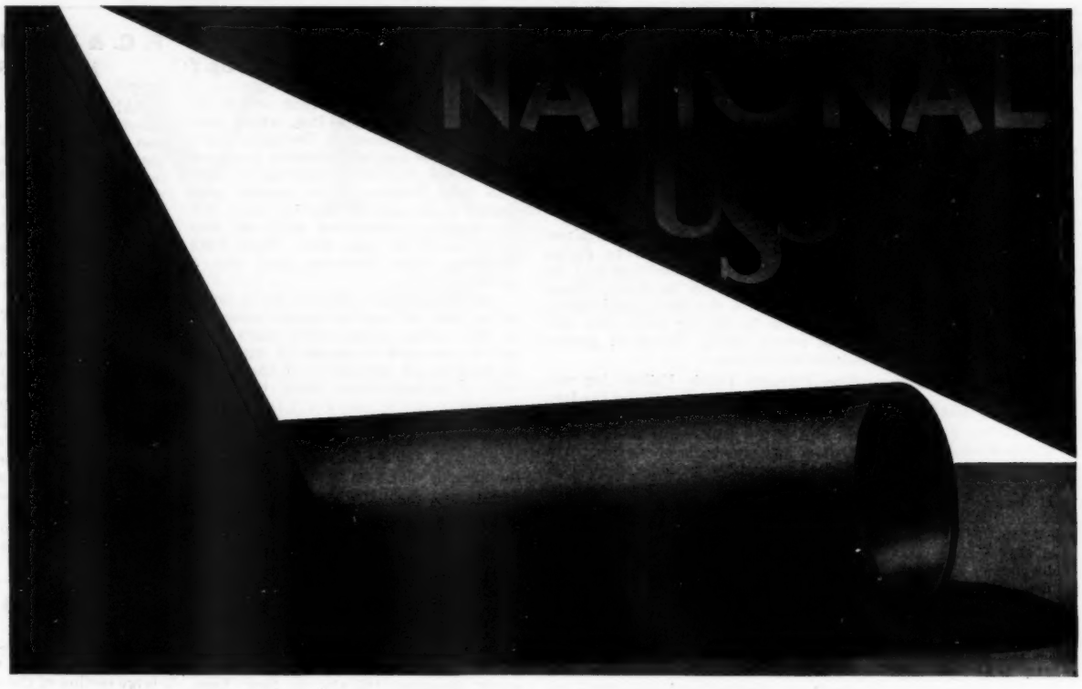
GREGG COUNTY

Atlantic Production Co.'s No. 1 A. V. Bacle, 330 ft. from N and E lines of lease, G. W. Hooper Sur. .....Rig up.

Barnsdall Oil Co.'s No. 1 Grant Benson, 330 ft. from S and E lines of 50ac. tr., W. P. Chisum Sur. ....Location.

Barnsdall Oil Co.'s No. 1 Adams, 330 ft. S and E of NE cor. of Shell's Slaton lease, G. W. Hooper Sur. ....Location.

(Continued on Page 78)



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Pipe Line Construction News

EASTERN GAS LINES ARE BEING CONSIDERED

By A. E. Mockler

NEW YORK, Feb. 8.—Natural gas for consumption on the Atlantic seaboard is coming in for close attention on the part of the so-called Morgan group on eastern public utility companies, according to reports in financial circles here. United Gas Improvement Co., serving the Philadelphia territory, and included in the so-called Morgan group, has engaged Ford, Bacon & Davis to survey its system with a view to ascertaining to what extent and how best natural gas may be utilized. The plans of U.G.I., it is reported, contemplates the distribution of natural gas as a mixture with its manufactured product.

Niagara Hudson Power Corp. and Public Service Corp. of New Jersey, also included in the Morgan group, have already had their systems surveyed and are going ahead with plans for the utilization of natural gas. Niagara Hudson has already closed contracts with an affiliate of Columbia Gas & Electric Corp. for natural gas, and it is reported that United Gas Improvement and Public Service Corp. of New Jersey will also draw their natural gas supplies from the Columbia system.

The Columbia natural gas pipe line from the Kentucky and West Virginia natural gas fields passes through Coatesville, Pa., at which point it is expected that the line will be tapped for connections with the nearby pipe line system of United Gas Improvement Co.

There have been no further developments in connection with the reported plans of the Columbia system to make natural gas available for distribution in the metropolitan New York area. Both the unsettled economic conditions and developments in the New York-Pennsylvania gas fields have a bearing on this step, it is believed, with a strong possibility that the gas fields in the Tioga area may be tapped for natural gas for transmission to the metropolitan area in the event that additional production continues to be proved up at recent rates. At present, it is emphasized, the current output of the Tioga area is required for supplying nearby markets, and any possible extension of the distribution of gas from this field will be deferred until the field is proved up further.

Standard Oil Co. of New Jersey and Columbia Gas & Electric Corp., with pooled interests, are by far the dominating factors in the natural gas situation in this area, although Cities Service Co. has important acreage holdings in the New York-Pennsylvania gas fields.

While official announcement is lacking, it is believed that the Columbia system has completed surveys for probable pipe line routes for transmitting natural gas to the New York City area and that construction of these lines will involve relatively little delay once a definite decision has been arrived at.

PRICES ARE REDUCED

The General Paint Corp., Hill, Hubbell division, has announced a reduction in prices on mill wrapped pipe, effective February 1. This reduction has been made possible because of increased volume of business, amounting to 35 per cent greater volume in 1931 than in the previous year. The operating economies effected by this increased volume are being reflected in lower prices.

The company now has machinery installed to coat and wrap pipe mechanically in the following pipe mills: National Tube Co., Republic Steel Corp., Jones & Laughlin Steel Corp., Youngstown Sheet & Tube Co., Spang, Chalfant Co., and Central Tube Co.

UTILITIES NOT SUBJECT TO PRICE FLUCTUATION

MONTGOMERY, Ala., Feb. 8.—Public utilities cannot be subjected to the sharp price fluctuations which are incident to private business, it was declared by the Public Service Commission in an order dismissing a complaint against the rates of the Birmingham Gas Co.

If the utilities have not been permitted to earn more than a fair return during prosperous times, the commission said, instead of being free to fix rates without regulatory control, this fact must be given consideration in dealing with rates and rate of return during periods of general business depression.

The Alabama Public Utility Act was enacted in October, 1920. Under the law, it is the duty of the commission to supervise rates of the utilities, as well as their securities and standards of service. The commission requires periodic reports of their revenues, operating expenses and capital expenditures, and through its staff the commission makes inspections of the operations and operating records of such utilities.

Under the commission's regulation, utilities are prevented from charging more for their service than will provide a reasonable return upon the fair value of their property devoted to the public use.

On the other hand, the commission says, unregulated industrial and commercial enterprises are free to charge for their products all that can be obtained during prosperous times. The limit to their price of profit is determined by supply and demand.

In the case of regulated utilities, the regulation of rates and control of return is exercised to the end that rates, at all times, be maintained, at a reasonable level. Were the utilities unregulated, as is true of private enterprises, if they were free during prosperous times to fix rates without regulatory control, then they could with justice, perhaps, be subjected to the price fluctuations suffered by private business during economic depressions. If, however, they have not been permitted to earn more than a fair return during prosperous times, this fact must be given due consideration when we deal with their rates and their rate of return during periods of general business depression.

It must be apparent, therefore, to every thinking man that public utilities cannot be subjected to the sharp price fluctuations which are incident to private business. Despite the great increase in all commodity prices since the laws regulat-

(Continued on Page 94)

DETROIT CONSIDERING NATURAL GAS PLANS

DETROIT, Mich., Feb. 8.—Steps to spur the Detroit City Gas Co. in its plans to bring natural gas to Detroit were taken by the Common Council. If a sufficient supply can be brought here, the council was told, the price can be reduced.

Charles W. Bennett, president of the gas company, said later that negotiations to tap a line from Kansas fields have been proceeding for some time.

John H. Morgan, city public utilities statistician, told the council Tuesday that a reduction of 14 or 15 cents a thousand feet would be possible if the arrangement is made. Councilman John W. Smith directed that gas line companies be canvassed to learn if any desired to compete with the Detroit as Co.

Councilman Eugene I. Van Antwerp moved that a letter be sent the gas company asking the present status of negotiations.

ORDERS FOR IRAQ PIPE EXPECTED BEFORE JULY

German reports say that orders for pipe for the Iraq pipe line, which were to have been placed in December, have been deferred and will probably be placed towards the close of the first half of 1932. The Iraq Petroleum Co. recently purchased eight cars for use in desert survey work in connection with the construction of the pipe line. Three were roadsters, four phaetons, and one a sedan.

Sale of Atlantic Refining Co.'s interest in Iraq oil last fall directs attention to that sector, which a few years from now is scheduled to assume an important position in oil production of the world, with a corresponding effect on world markets.

According to the agreement with the Iraq government, Iraq Petroleum Co., Ltd., which holds a 75-year concession in the area, is obligated to complete a pipe line to the Mediterranean by December 31, 1935. The line will branch off, with termini at the ports of Tripoli and Haifi.

In Iraq Petroleum Co., Ltd., the Anglo-Persian Oil Co., the Royal Dutch-Shell interests, an American group and a French group each hold 23¾ per cent interest, the remaining 5 per cent being held by C. S. Gulbenkian, an Armenian. The American interest is represented by the Near East Development Corp., in which Standard Oil Co. of New York (Socony-Vacuum Corp.) and Standard Oil Co. (New Jersey) divide equally a five-sixths participation, the remaining sixth being held by Gulf Oil Corp.

It is understood that Atlantic Refining Co. received from the sale of its holding between $2,000,000 and $2,250,000, including a profit of approximately $1,433,000. The sale was made to the two Standard companies, the Gulf not having added to its original holding.

The French have been preparing for the development and shipment of Iraq oil. Refining capacity of the country is being steadily built up, and by government decrees of April 1, 1931, the duties levied on petroleum products imported were increased. Under the terms of the decree, all the companies receiving import authorizations must have refineries in operation by October 1, 1934.

GOVERNMENT INQUIRY OF MISSOURI-KANSAS

CHICAGO, Feb. 8.—The Government today began an investigation of the Missouri-Kansas Pipe Line Co. George E. Q. Johnson, United States district attorney, said he had received authorization for the investigation from the attorney general's office in Washington. One of his assistants, Joseph A. Struett, and several post office inspectors began to interview persons who bought the company's stock between January 1 and June 16, 1930, when its capitalization advanced from $11,000,000 to $55,000,000.

Investigation has shown, Struett said, that Frank P. Parish & Co. was incorporated in Delaware July 31, 1929, with offices at the address of the Missouri-Kansas Pipe Line Co., of which Frank P. Parish was one of the original incorporators. The Parish company, it is said, entered into six agreements to underwrite the stock of the Missouri- Kansas company to the extent of 2,000,000 shares with a value of $55,000,000.

A petition for appointment of a receiver for the Missouri-Kansas Pipe Line Co. and subsidiaries was filed in the United States District Court at Chicago January 10, 1931. Three days after the filing of the petition, Federal Judge James H. Wilkerson dismissed the case on grounds of lack of jurisdiction.

P. G. & E. COMPLETING HIGH PRESSURE LINE

SAN FRANCISCO, Calif., Feb. 6.—Among Pacific Gas & Electric Co.'s biggest jobs in its gas department, one is now about completed in San Francisco laying 7½ miles of 26-inch high-pressure main from the Potrero gas plant to the San Mateo County line. This main, costing $350,000, will facilitate distribution of natural gas in San Francisco and later will become a unit of a second feeder line to be built into the city from Milpitas, where the existing feeder ties in with the pipe line from Kettleman Hills. This new main will cost $2,000,000.

Projects in other sections included mains to introduce natural gas into Escalon and Woodbridge, San Joaquin County; a 5-mile, 12-inch pipe line from Salinas to Spreckels Sugar Co.'s beet sugar factory; large mains in and around Vallejo and an extension to the Mare Island Navy Yard; additional equipment in the Kettleman compressor plant and new gathering pipe lines at Kettleman Hills; a main to supply the Sunnyvale airship base; greater facilities for the Willow Glen section of San Jose.

NATURAL GAS EXTENSIONS EXPECTED IN THE EAST

The open winter experienced through a large section of the country has focussed attention on plans believed to be under consideration for an extensive expansion of natural gas pipe lines. Of particular interest is the situation in the eastern section of the United States where it is expected several large industrial centers may be supplied with natural gas during this year.

Several companies are in an especially advantageous position to take part in any such expansion. They include the Standard Oil Co. (New Jersey), the Columbia Gas & Electric Co., and the Doherty interests. With large holdings throughout New York, Pennsylvania, West Virginia and Kentucky, these companies already have pipe lines which can be extended to reach many of the larger cities in the East.

Plans considered during the past two years for supplying Detroit with natural gas are understood to be receiving further thought with the possibility the automobile center will be the terminus of a natural gas pipe line during this year.

Interest in these rumored projects is shown by the increased demand for the pipe line maps compiled and published exclusively by The Oil and Gas Journal. These maps, printed on especially heavy bond paper and measuring 36 by 48 inches, show all natural gas trunk pipe lines on one side and all oil and gasoline trunk pipe lines on the reverse side. The charge for the maps is $1, postpaid

TWO NEW PIPE COMMITTEES

CHICAGO, Feb. 8.—The appointment of two committees which will be active in increasing the interest of the industry in protective coatings has been announced by John B. McEwan, who was recently placed in charge of activities of the Underground Pipe Protection Institute, with offices at 30 North La Salle Street in Chicago. Members of the committees are: Co-ordinating committee, Deming Bronson, General Paint Corp., New York City, chairman; E. V. Rinehart, Johns-Manville Sales Corp., New York City, and G. B. McComb, The Barrett Co., New York City. Technical committee, Dr. H. H. Hopkins, Du Pont de Nemours, Philadelphia, chairman; Dr. C. S. Reeve, The Barrett Co., New York City, and E. P. Fager, Dearborn Chemical Co., Chicago.

VIGOR

NATURAL GAS, though young in years, has already become one of America's Giant Industries. It would be incorrect to say that it is "still in its infancy". Yet no one believes that it has even approached the maturity of its power and influence in industrial expansion. The vigor it has thus far revealed is promise of greater achievements still in the future.

SUCH vigor must be directed and controlled—else it may be wasted in unprofitable effort. The Hope Engineering Company—with a history paralleling that of Natural Gas, and with the understanding gained in 26 years of daily association with the young giant—is in a unique position to aid and direct its future growth, that its vigor and vitality be not impaired.

HOPE ENGINEERING COMPANY

Engineers and Contractors in Pipe Line Construction

FIELD AND MARKET ANALYSIS • ENGINEERING COUNSEL AND DESIGN • ORGANIZATION AND FINANCE
CONSTRUCTION AND EQUIPMENT • MANAGEMENT AND OPERATION

Mount Vernon, Ohio ~ New York, N. Y.

HOPE

• AMERICAN INDUSTRY NEEDS MORE NATURAL GAS •

May Open New Area in Ector County

Five Locations Staked in West Texas, Twelve in Wichita Falls and Ranger Districts and Four in the Panhandle. New Yates Proration

By L. E. Bredberg
Staff Correspondent, West Texas Fields

FORT WORTH, Tex., Feb. 8.—There were five locations staked in West Texas this week, one in Pecos County, one in Howard County, one in Ward County and two in Loving County, the greatest amount of new activity reported in the district for some time. There were three completions reported; one in Pecos, one recompleted well in the Hendricks Pool, Winkler County, and one in Ward County.

Stanolind Oil & Gas Co.'s No. 1 Weiss in Section 4, Block 3e, H.&T.C. Survey, extension well of the Barker area, is fishing for tools which were blown up the hole when gas was struck at 2,330 feet.

Weekley, McCurdy and Casteel's No. 1 Cowden in Section 33, Block 43, Township 2s, T.&P. Survey, Ector County, continues to be the most interesting test drilling in the district, the well bailing with total depth of the hole at 3,940 feet in lime. The last core, taken from 3,929-40 feet, showed stains of oil in the lime. The owners have been coring for over 100 feet, taking from 15 to 20 feet per core, many of these cores reported to have been saturated with oil. The well encountered an estimated 5,000,000 to 8,000,000 feet of gas from 3,824-27 feet, and many are of the opinion that it will prove a producer, opening up a new area for the county, or later proving an extension of the Stanolind Oil & Gas Co.'s Cowden ranch producers, 9 miles to the north.

Second Test in Coke County

Mid-Kansas Oil & Gas Co., which encountered a good showing of oil in its No. 1 W. E. Lackey in Section 272, Block 1-A, H.&T.C. Survey, Coke County, has renewed leases on the J. S. Craft, Moab Fowler, C. J. Henry and J. W. Pace farms, all of which lie in its 11,000-acre block around the Lackey dry hole, and will start a second test on the block within 30 days after the company completes five-year extensions on the remainder of the block. Three-year extensions were obtained on the above mentioned farms. No. 1 Lackey encountered the oil showings at 3,775 feet, which created considerable interest in the test and the county, which has no production. A second test will be closely watched.

The California Co., Fuhrman Petroleum Co. and Honolulu Oil Co. are to drill a test in Section 47 Block 36, Township 3s, T.&P. Survey, Glasscock County, under a unit plan of operation, the test to go to 3,500 feet. It is about 20 miles southwest of the nearest production in Glasscock County.

Fred Turner of San Angelo is also assembling a block in Gaines County for a test.

C. P. Link of Fort Worth and C. M. Joiner of Dallas are assembling a 26,000-acre block south of Alpine in Brewster County and will probably drill a test on it. As the block has not yet been completely assembled, location has not been reported.

The Superior Oil Co. of California has leased the entire Massie ranch comprising 22,000 acres in Block UV, and O.P., G.C.&S.F. Surveys, Crockett County. It had already leased 8,000 acres in this vicinity. This is one of the largest blocks taken in the district for a long time.

New Yates Proration

The Yates Pool is now being produced under a new method of proration, based on bottom hole pressures of the wells which are taken in the majority of cases by pressure bombs. It is to be tried for the six-month period from January 1 to July 1. This method was discussed at the last meeting held by the Yates Pool advisory committee in Dallas, two weeks ago and the Railroad Commission took it under advisement, later granting permission to try the new method which petroleum engineers and production men of the companies operating in the field held to be the best method for prorating the field which is held down to a 65,000-bbls. per day allowable.

Shipley and others' No. 1 Monroe in western Ward County was given a 15-quart shot from 4,662-73 feet, and oil rose 2,200 feet the first three hours after the shot. While cleaning out it swabbed 130 bbls. of oil in eight hours. Before tubing was pulled to deepen the well flowed only about 35 bbls. daily, and when swabbed made only 50 bbls. per day. It is located in Section 3, Block 1, W.&N.W. Survey, the first Delaware sand well to be struck in this county.

Daily Average Oil Shipments From West Texas, Week Ending January 28

Shipments Through Main Trunk Lines

Company, size, location—	Amount
Atlantic P. L., 10-in., Houston	21,180
Gulf P. L., 8-in., Ranger	22,488
Humble P. L., 2-8-in., San Angelo	35,591
Humble P. L., 12-in., Station "A"	51,774
Illinois P. L., 2-8-in., Del Rio	23,150
Magnolia P. L., 8-in., De Leon	8,654
Shell P. L., 10-in., Houston	22,327
Shell P. L., 10-in., Cushing, Okla.	33,086
Texas P. L., 12-in., Houston	3,661
Total	221,911

Shipments to Refineries

Col-Tex Refining, Colorado	6,000
Concho Refining, San Angelo	150
Cosden Refining, Big Spring	6,246
Gulf Refining, Sweetwater	3,577
Lockhart (Rio Grande), El Paso	2,130
Marathon Refining, Del Rio	1,209
Paso-Tex Refining, El Paso	4,300
Texas Pipe Line, El Paso	1,000
Wickett Refining, Wickett	1,200
Total	25,812
Daily average distribution	247,723
Daily average production (including Lea County, New Mexico)	207,461
Daily average from storage	40,262

RANGER AND WICHITA FALLS

Activities picked up in the Ranger district this week, there being 12 locations staked as follows: Three in Brown, three in Coleman, one in Callahan, one in Eastland, two in Palo Pinto and two in Shackelford County.

One well was completed in Eastland, one in Erath, one in Coleman, four in Palo Pinto and one in Shackelford County.

The Prairie Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Ritchie in C.T.R.R. Survey, Abstract 140, Palo Pinto County, which is a new producer from the Edgin sand, and 1½ miles southwest of the nearest production of the two companies, has been completed for a 70-bbl. well at a total depth of 1,704 feet. A second well is now drilling in this area.

There were three locations in Wichita, one in Archer County, and four in Young County this week. There were 25 completions reported in the Wichita Falls district during the past two weeks, giving proof that the area is picking up in activities. There were eight completions reported in Archer County, one in Montague, six in Wichita and 10 in Young County.

Panhandle Refining Co.'s No. 1 Bridwell-Mayfield in the Indianola Survey, 7 miles east of Graham, Young County, and an offset to the same company's gasser on the Cox ranch, was abandoned this week after missing the 2,500-foot pay sand. The former discovery was made a year ago, but activity in the area was held back because of conditions in the industry, and remoteness of this discovery from pipe line outlet.

George L. Kelly and others have abandoned their No. 1 Nichols deep test 7 miles due north of Chalk Hill in Archer County. Total depth is 2,553 feet. Base of the Gunsight lime was logged at 1,655 feet. Surface elevation is 1,019 feet.

Ray Zing and others abandoned their No. 1 Wade deep test in southeastern Clay County at a total depth of 3,501 feet. This was an old well drilled deeper from 1,028 feet, but failed to pick up deep pay horizons.

W. B. Hamilton is to make a 4,000-foot test in the southeastern corner of the S. Swartwout Survey, Abstract 195, Archer County. Exact location has not

(Continued on Page 73)

WILDCAT OPERATIONS IN WEST TEXAS

Week Ending February 8

ANDREWS COUNTY

Company, well, farm name, section and block—	Remarks—
Fuhrman Pet. Co.'s No. 1 Boner, 1,320 ft. from N and 440 ft. from W, Sec. 24, Blk. A-43, P.S.L.	S.D. 145 ft.

BREWSTER COUNTY

Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE, Sec. 100, Blk. 2, G.C.&S.F. Sur.	S.D. 1,302 ft.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 930 ft. from N and 2,500 ft. from E of Sec. 18, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor., Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.

COCHRAN COUNTY

Penn Oil Co.'s No. 1 Slaughter, C Labour No. 80 of League 129, Carson County School Lands	T.D. 5,052 ft.

CONCHO COUNTY

Beesley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur.	Drlg. 1,055 ft.

CROCKETT COUNTY

Doleman & Moore's No. 1 Ferner, 2,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, I.&G.N. Sur.	Spudded and S.D.

CULBERSON COUNTY

Harris-Hann's No. 1 Seay, 1,980 ft. from N and E of Sec. 16, Blk. 54, P.S.L.	Location.
Kornrumpf et al's No. 1 Garen, 330 ft. S and W, Sec. 15, Blk. 79, Public School Land	S.D. 1,280 ft.

DAWSON COUNTY

Albaugh et al's No. 1 Robinson, C NW, Sec. 46, Blk. M, E.L.&R.R. Sur.	To resume drilling.

ECTOR COUNTY

Weekly Oil Corp. et al's No. 1 Cowden, 1,980 ft. from N and W, Sec. 33, Blk. 43, Twp. 2s, T.&P. Sur.	Coring 3,899 ft.; increase in gas 3,824-27 ft.
H. F. Wurts' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW, Sec. 16, Blk. 46, Twp. 3s, G. M. M.Br.&A. Sur.	S.D. 3,280 ft.

EL PASO COUNTY

Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.F. No. 7,247	S.D. 2,152 ft.

FISHER COUNTY

Cranfill & Reynolds' No. 1 Snipe, 330 ft. from N and W lines of Sec. 195, Blk. 1, B.B.B.&C. Sur.	T.D. 3,140 ft.; P.B. 3,112 ft.; pumping 10 bbls. day.
Cranfill & Reynolds' No. 1 George, 400 ft. from N and 380 ft. from E, Sec. 200, Blk. 1, B.B.B.&C. Sur.	S.D. 2,795 ft.; resuming operations.

(Continued on Page 77)

WILDCAT OPERATIONS IN TEXAS PANHANDLE

Week Ending February 8

BRISCOE COUNTY

Company, well, farm name, section and block—	Remarks:
Humble Oil & Refining Co.'s No. 1 C. Adair estate, 2,500 ft. from N line and 2,100 ft. from E line of Sec. 7, Blk. G-6	Location.

CARSON COUNTY

Continental Oil Co.'s No. 4 Block, 330 ft. from N, 990 ft. from E, Sec. 111, Blk. 4, I.&G.N. Sur.	Drlg. 550 ft.
H. A. M. Oil Co.'s No. 2 Cooper, 330 ft. from S and E, Sec. 5, Blk. 9, I.&G.N. Sur.	Location.
Texhoma Nat. Gas Co.'s No. 1-G Gore, 1,320 ft. from S and 1,327 ft. from W, Sec. 42, Blk. 4, I.&G.N. Sur.	Drlg. 125 ft.

CHILDRESS COUNTY

C. L. Sloan et al's No. 1 B. P. Smith, Sec. 49, F. P. Knott lands	T.D. 5,000 ft.

COLLINGSWORTH COUNTY

Dixon et al's No. 1 Bell, 330 ft. N, 1,320 ft. W, Sec. 102, Blk. 21, H.&G.N. Sur.	S.D. 2,503 ft.
Downey et al's No. 1 Beasley, SE cor. SW SE, Sec. 95, Blk. 15, H.&G.N. Sur.	Rigging up.

DEAF SMITH COUNTY

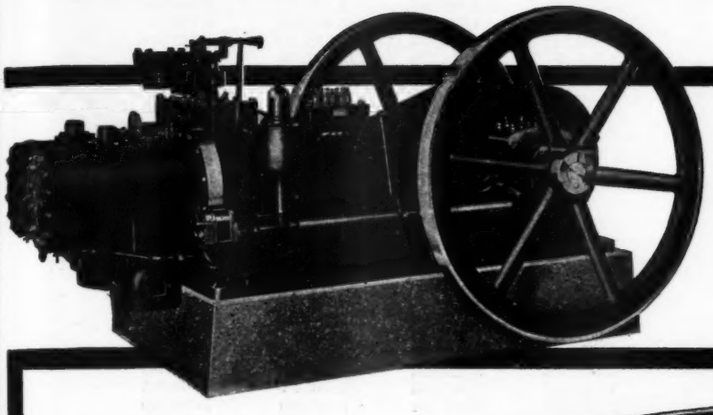
Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 13-3n-3e	S.D. 275 ft.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S and 330 ft. from W, Sec. 146, Blk. 25, H.&G.N. Sur.	S.D. 1,350 ft.
Boyes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 65, Blk. 25, H.&G.N. Sur.	Spudded and S.D.
Brown et al's No. 1 Duncan, 330 ft. S and E, NW, Sec. 93, Blk. 3, I.&G.N. Sur.	S.D. 2,720 ft.
Danciger O. & R. Co.'s No. 3 Byrum, 330 ft. from N line, 330 ft. from E line, Sec. 188, Blk. 3, T.&N.O. Sur.	Drlg. 1,000 ft.
Gulf Oil Corp.'s No. 1 Catlin, 2,310 ft. from N line, 330 ft. from E line, Sec. 27, Blk. 3, I.G.N. Sur.	Rigging up rotary.
Jean Pet. Co.'s No. 1 Furneaux Bros., 330 ft. N and W, cor. SE, Sec. 200, Blk. B-2, H.&G.N. Sur.	S.D. 3,010 ft; cleaned up fishing job.
Jewel Oil Co.'s No. 1 Meers, 330 ft. from S and W of NW SW, Sec. 106, Blk. 3, I.&G.N. Sur.	Drlg. 2,675 ft.
Nelson et al's No. 1 Crews, 330 ft. S and E, NW, Sec. 12, Blk. 25, H.&G.N. Sur.	S.D. 2,620 ft.
Nipper et al's No. 1 Morse, 330 ft. from N and E, Sec. 1, Blk. 26, I.&G.N. Sur.	Drlg. 2,460 ft.
Operators Royalty & Prod. Co.'s No. 2 Arnold, 330 ft. from S and W, Sec. 149, Blk. 3, I.&G.N. Sur.	Rig.
Pulse-Shell Pet. Corp.'s No. 1 Wright, 330 ft. from S and W of Sec. 13, Blk. 3, I.&G.N. Sur.	S.D. 2,659 ft.

(Continued on Page 77)

POWER!
FOR DEEP WELL PUMPING



Superior 90 H. P. Two Cycle, Twin Cylinder Gas Engine. With all bearings in dust-proof and oil-tight housings, its flexibility, smoothness and dependability make it an ideal prime mover for band wheel power service.

National 15C Band Wheel Power renders long, continuous, economical and dependable service by virtue of its simple design, rugged construction and fully enclosed flood oiling system.

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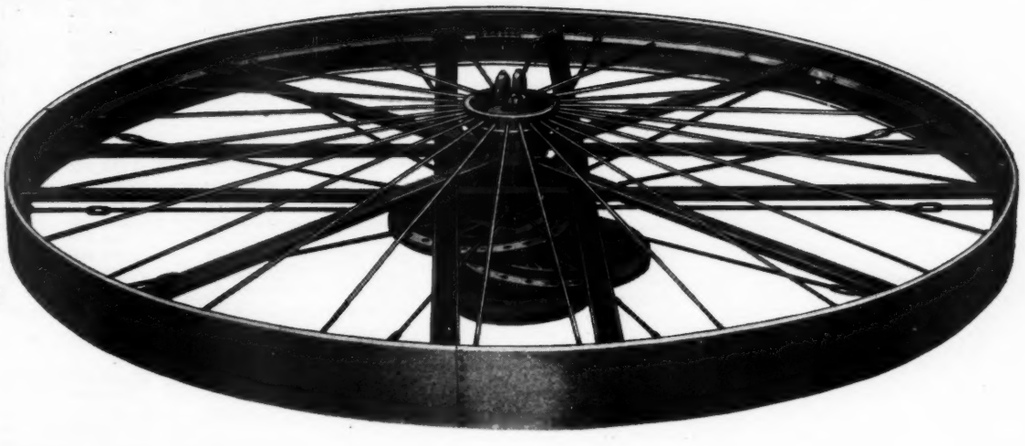

National Type C-130 Pumping Jack is of welded steel construction, exceptionally strong and rigid. Rated polished rod load, 13,000 pounds; rated length of approximately straight line stroke, 48 inches.

Ask for Descriptive Bulletin No. 28.

THE NATIONAL SUPPLY COMPANIES

UPS AND DOWNS OF 98 MAJOR OIL POOLS

(Continued from Page 18)

bine sand pools in Texas have shown no such stability and it is doubtful if the East Texas pools would stand up any better than the Powell and Mexia Pools if permitted to produce without restraint, and even under severe curtailment are expected to show steady decline in potential production per well.

The accompanying table shows a consistent decline in most of the fields, with here and there an exception brought about by the discovery of deeper pays, or the use of artificial means to restore pressure as in the Allegany-Bradford Field, which for the past two years has been under curtailment, and which could have produced 50 per cent more than its production in 1930 and 1931 had operations been carried on normally.

VARIATION IN PRODUCTION IN THE MAJOR FIELDS

Showing Annual Crude Oil Output From 1925 to 1931, Both Inclusive, in Barrels of 42 Gallons

Pool—	1925	1926	1927	1928	1929	1930	1931
Santa Fe Springs, California	18,969,528	17,446,709	15,153,578	16,093,931	76,477,464	44,251,396	24,272,66
Elwood-Goleta, California	.....	.....	86,840	895,152	9,435,819	14,606,307	10,470,05
Ventura Avenue, California	6,699,403	14,795,495	17,808,704	18,920,942	20,934,388	17,493,155	16,255,25
Seal Beach, California	.....	587,107	16,424,929	12,436,371	14,418,305	8,026,796	4,882,11
Kern River, California	5,901,855	4,358,396	6,098,582	5,071,284	6,089,344	5,349,915	3,857,47
Midwest-Sunset, California	36,923,402	33,968,755	31,670,708	27,314,093	25,310,976	23,487,147	18,728,46
Elk Hills, California	11,971,149	12,292,754	10,073,073	8,107,198	6,353,035	6,572,379	4,925,63
Coalinga, California	7,751,107	7,295,807	7,154,599	4,655,284	3,558,843	3,373,078	2,978,39
Fullerton, California	4,481,443	6,987,489	7,008,934	5,743,044	4,813,942	4,423,266	3,626,00
Coyote, California	7,140,004	6,030,619	5,146,864	4,901,988	4,176,035	3,890,047	3,751,85
Montebello, California	6,843,194	6,515,493	5,498,252	4,369,638	3,657,922	2,712,725	2,446,06
Richfield, California	4,318,488	5,574,244	7,884,042	6,798,673	5,776,258	3,643,578	2,443,18
Huntington Beach, California	15,887,474	19,064,814	26,344,697	19,642,278	16,007,030	11,108,203	7,778,54
Long Beach, California	40,173,375	37,931,964	34,541,667	62,467,103	60,495,555	36,599,688	30,166,40
Torrance, California	13,242,817	10,354,905	8,338,938	6,454,067	5,000,218	4,116,846	2,191,78
Inglewood, California	18,348,396	17,390,131	12,571,556	10,762,797	8,768,101	6,429,205	5,289,12
Dominguez, California	13,328,817	7,801,586	5,887,645	4,267,009	3,606,850	3,694,075	4,183,05
Playa Del Rey, California	.....	.....	.....	.....	25,121	4,719,981	9,759,01
Kettleman Hills, California	.....	.....	.....	199,690	1,951,786	6,209,357	16,544,82
Mount Poso, California	.....	.....	40,277	53,977	1,826,056	3,883,924	3,009,37
Rosecrans, California	7,263,466	6,114,430	3,506,116	2,392,325	2,463,808	2,435,341	1,334,40
Joiner, Texas	.....	.....	.....	.....	.....	29,122	37,932,81
Kilgore, Texas	.....	.....	.....	.....	.....	.....	43,537,81
Longview, Texas	.....	.....	.....	.....	.....	.....	26,257,28
Pecos County, Texas	.....	.....	5,250,173	22,673,875	41,733,955	42,603,498	27,401,17
Joe Bruner, Texas	.....	.....	.....	178,430	13,556,048	7,387,359	4,350,14
Pampa, Texas	.....	.....	3,966,412	7,795,865	18,406,284	21,782,549	14,861,34
Chalk-Settles, Texas	.....	100,915	1,127,269	4,692,236	14,826,190	11,188,886	9,762,30
Barbers Hill, Texas	38,338	192,971	307,160	306,177	4,523,350	7,865,597	8,085,27
Dewalt, Texas	.....	.....	.....	391,244	4,016,401	4,291,689	4,198,00
Wilbarger County, Texas	3,314,523	5,116,448	4,462,768	8,124,626	10,411,183	7,867,089	4,167,46
Humble, Texas	1,729,740	1,679,449	1,523,844	1,263,983	2,906,409	5,864,035	3,041,58
Pierce Junction, Texas	327,815	1,041,723	3,163,585	3,983,484	5,193,061	4,056,270	2,960,39
Mirando, Texas	1,069,980	4,227,957	4,540,520	3,098,196	4,165,620	4,097,075	5,063,07
Shackelford County, Texas	1,049,283	2,712,610	3,038,704	3,639,368	4,145,166	2,319,132	1,203,84
Burkburnett, Texas	5,158,665	4,330,121	4,592,203	4,031,011	3,597,936	3,104,834	2,460,66
Electra, Texas	6,294,646	6,127,336	5,099,618	4,627,192	4,601,996	3,995,470	2,941,61
Archer County, Texas	13,254,247	11,875,426	9,648,832	7,374,445	6,592,594	6,023,760	4,384,65
Hutchinson County, Texas	382,340	23,101,806	32,240,493	13,839,632	9,709,746	7,285,486	3,933,83
Brown County, Texas	1,349,932	3,596,033	7,519,647	4,257,149	3,147,236	2,291,227	1,204,49
Big Lake, Texas	8,759,457	10,978,135	8,668,381	7,039,043	6,425,664	7,016,204	9,501,82
Hendricks, Texas	.....	6,431	3,109,523	58,893,863	49,826,190	25,925,581	14,992,72
Luling, Texas	9,371,992	7,809,771	6,099,264	5,097,808	4,246,861	3,476,058	2,948,51
Hull, Texas	7,296,687	7,242,551	5,914,333	4,115,268	3,488,869	3,161,436	2,237,01
West Columbia, Texas	4,183,636	3,366,892	3,459,220	2,928,949	2,441,432	1,915,990	1,490,10
Wortham, Texas	16,024,035	2,834,207	1,137,396	664,582	430,552	276,468	148,64
South Liberty, Texas	4,674,003	2,089,391	1,102,830	1,404,499	2,207,257	1,550,477	694,62
Spindletop, Texas	420,893	14,838,218	21,264,935	14,332,357	10,183,684	5,997,913	3,209,99
Powell, Texas	17,218,874	10,379,485	6,249,034	4,059,389	2,884,177	2,077,524	1,362,27
Young County, Texas	.....	2,900,081	3,473,329	2,987,054	2,481,445	5,229,401	4,231,60
Van, Texas	.....	.....	.....	.....	122,139	7,530,222	15,542,02
Refugio, Texas	.....	.....	.....	25,312	2,063,475	11,698,202	9,291,93
Darst Creek, Texas	.....	.....	.....	.....	228,876	11,343,682	7,963,69
Upton-Crane, Texas	.....	2,218,242	29,583,131	25,261,260	17,195,992	14,152,389	7,102,01
Mexia, Texas	6,730,323	4,826,454	4,127,388	2,552,468	1,939,317	1,510,993	1,186,77
St. Louis-Pearson-Maud, Okla.	10,400	10,677	1,406,020	21,878,954	36,718,245	13,194,525	8,056,44
Oklahoma City, Oklahoma	.....	.....	.....	110,496	8,709,727	34,603,067	44,822,50
Little River, Oklahoma	.....	.....	5,144,014	24,447,158	28,909,393	17,348,145	9,444,87
Marshall-Lovell, Oklahoma	.....	.....	436,213	2,692,520	5,759,444	2,196,202	1,256,44
Allen, Oklahoma	93,124	174,049	593,420	6,958,689	8,971,530	6,579,898	3,839,57
Carr City, Oklahoma	.....	.....	.....	.....	3,309,094	3,280,091	4,262,21
Seminole City, Oklahoma	.....	10,838,823	47,039,644	18,237,004	11,291,330	6,562,504	4,370,31
Earlsboro, Oklahoma	.....	388,460	36,885,196	33,321,824	25,602,005	23,398,033	12,699,23
Bowlegs, Oklahoma	.....	.....	36,649,733	23,800,896	12,122,250	6,509,450	4,391,54
Searight, Oklahoma	.....	.....	10,232,511	5,218,241	3,867,349	3,107,065	1,501,92
Sholem-Alechem, Oklahoma	634,331	2,011,408	5,255,516	5,328,386	4,829,057	4,852,825	4,579,66
Burbank, Oklahoma	19,954,667	16,352,805	15,266,099	13,060,449	7,435,589	5,717,088	4,566,29
Tonkawa, Oklahoma	22,721,580	13,867,121	7,747,121	4,878,203	3,518,176	2,432,084	1,991,63
Bristow, Oklahoma	9,547,666	9,080,207	7,585,670	5,624,601	5,295,920	4,678,137	3,661,29
Cushing-Shamrock, Oklahoma	8,024,551	7,621,495	6,942,017	6,521,413	5,988,122	4,980,031	4,656,39
Cromwell, Oklahoma	11,673,369	6,193,396	4,521,063	3,386,553	2,867,933	2,604,682	1,897,20
Healdton, Oklahoma	5,575,981	5,501,310	5,447,776	5,068,978	4,599,309	4,208,631	4,025,05
Konawa, Oklahoma	.....	.....	.....	.....	.....	5,099,516	3,118,04
Garber, Oklahoma	7,484,428	11,207,851	5,292,726	2,943,248	1,973,902	1,639,045	1,293,05
Wewoka, Oklahoma	4,483,843	9,573,687	5,899,957	2,415,180	2,409,118	1,428,714	2,844,27
Braman, Oklahoma	2,933,564	5,578,860	3,858,073	1,611,121	1,356,608	1,115,281	713,62
Davenport, Oklahoma	3,131,158	4,309,769	1,224,921	764,121	628,859	443,493	333,11
Hewitt, Oklahoma	5,324,672	4,200,975	3,539,005	3,338,421	2,952,560	2,501,412	2,145,89
Graham-Fox, Oklahoma	4,442,526	4,114,264	3,307,351	2,563,882	1,991,753	1,625,203	1,464,50
Mounds-Beggs, Oklahoma	4,026,207	3,877,786	2,995,880	2,509,747	2,029,634	1,315,367	1,053,13
Papoose, Oklahoma	7,802,531	3,632,801	2,467,950	1,546,151	1,204,529	982,387	714,68
Sedgwick County, Kansas	.....	.....	.....	378,851	8,899,688	7,719,802	5,840,23
Rainbow Bend, Kansas	3,949,396	1,405,225	802,672	471,840	439,251	581,240	518,28
Eldorado-Augusta, Kansas	8,867,807	9,634,084	10,517,922	9,690,889	9,272,141	9,099,075	7,769,39
Greenwood County, Kansas	13,464,805	17,074,977	12,664,125	9,872,560	7,920,990	7,265,892	5,564,32
Sumner County, Kansas	3,436	1,248,088	6,708,275	7,787,738	4,566,556	3,224,852	2,348,37
McPherson County, Kansas	.....	.....	.....	.....	.....	5,604,670	9,184,39
Homer, Louisiana	4,815,883	2,071,498	1,813,900	1,576,940	1,418,424	1,268,578	1,110,81
Caddo, Louisiana	4,178,839	4,620,130	6,047,857	4,888,365	4,652,047	4,379,614	3,345,15
Haynesville, Louisiana	4,815,883	3,579,359	2,754,300	2,222,804	1,802,721	1,746,089	1,908,24
Urania, Louisiana	9,610	4,130,917	3,621,650	2,656,050	2,120,465	1,905,492	1,478,54
Smackover, Arkansas	74,075,613	52,155,308	35,507,476	24,775,769	19,666,126	18,755,335	12,044,93
El Dorado-Champagnolle, Arkansas	3,220,435	2,712,610	2,188,033	5,617,219	4,485,371	2,986,026	2,276,41
Salt Creek, Wyoming	21,680,070	18,016,104	14,397,590	14,066,816	11,365,322	10,517,980	8,846,65
Lea County, New Mexico	.....	.....	.....	34,934	740,165	9,459,319	14,596,71
Sunburst, Montana	2,895,910	6,656,280	4,313,388	3,209,574	2,323,406	1,940,515	1,519,93
Bradford-Allegany, Pennsylvania-New York	5,812,625	6,206,000	7,314,500	8,418,000	11,274,000	12,249,065	11,419,00

Production at Low Level in Oklahoma

Steady Decline in Pipe Line Nominations May Make It Even Lower in February. Taking Care of Underproduced Wells

By W. A. Spinney
Staff Correspondent, Oklahoma Fields

Sharp declines continue in the State's daily average production due to the lowering of market demand. Production for the week ending February 6, fell to 395,650 bbls. a day, the lowest daily average in several years with the exception of the short time last year the State's fields were under martial law. The drop from the previous week amounts to approximately 16,600 bbls. a day. The daily average for the current week is a decline of 80,000 bbls. a day from the State's daily allowable, which was placed at 475,000 bbls. on January 1, 1932. The largest flush field in the State, the Oklahoma City Field, with a rated potential of over 3,000,000 bbls. a day from 870 wells, reports a daily average for the week of 77,940 bbls.

An important wildcat in Lincoln County was showing oil from the Hunton lime. The test is believed to be logging high. It is Barnsdall Oil Co. and others' No. 1 Taylor, C SW NW, Section 17-14-5. It cored the Hunton lime at 4,463-95 feet, where a showing of oil was reported. It is now fishing for a slip. The formations are logging considerably higher than tests drilled in the vicinity and the owners are optimistic of finding production in the lower formations.

The Globe Refining Co. of Blackwell, increased its takings from the Oklahoma City Field 3,000 bbls. a day on Monday, February 1, bringing its total to 8,000 bbls. Of this amount the Continental Pipe Line Co. will handle 5,000 bbls. daily and the Texas-Empire will handle 3,000 bbls. a day. Termination of old contracts and depletion of its stocks at the refinery caused the company to increase its daily shipments. This is the only company taking oil from the Oklahoma City Field to increase its shipments recently.

Production Will Be Lower

The total oil production of the Oklahoma City Field during the month of January was 3,359,283 bbls. according to the umpire's committee, which is a decline of 2,105,589 bbls. from the December total. Under the two orders issued by the Oklahoma Corporation Commission the allowable for the pool was 4,080,000 bbls. for the month of January, while the amount produced was 720,717 bbls. less than the allowable. The total underage in the field to February 1, was approximately 3,400,000 bbls. and is continuing to increase.

It is believed that average daily production in February will be lower than in January, because of the reduced allowable. The low daily production for the year was on February 1 at 7 a.m., when the field made 38,100 bbls. This was due to several operators shutting down over Sunday.

Ray M. Collins, pipe line umpire of the Oklahoma City Field, has established headquarters on the Cromwell-Franklin Oil Co.'s Trosper-Park lease in Section 13-11-3w, with J. E. Flynn, in charge.

The details of the pipe line allocations are expected to be ready by the first of the week. The allocations are being made for the express purpose of giving each lease in the field an outlet for its production, so the underage can be prevented and the deferred underage can be moved out of the field in the next 60 days.

Crude oil stocks in the Oklahoma City Field were reduced in January approximately 102,600 bbls. it was indicated in the production and pipe line report. The summary also shows a market demand decline of approximately 32,000 bbls. per day in the same month. The following is a summary of the months of December and January:

	January	December
Allowable production ..	4,080,000	5,984,022
Actual production	3,359,283	5,584,785
Shipments	3,461,885	5,149,521

Phillips May Build Pipe Line

Recent transactions indicate the Phillips Petroleum Co. may build a pipe line from the Oklahoma City Field to its refinery at Okmulgee. The Standish Pipe Line Co., a subsidiary of the Phillips, has turned some of its connections in the Seminole and St. Louis area to other companies. This action, together with the fact that the Phillips refinery at Okmulgee has been experimenting with Oklahoma City crude, indicates the company may plan the construction of a pipe line.

Connections dropped by the Standish Pipe Line Co. and taken by the Gulf Pipe Line Co. were, the P. Fixico in Section 26-9-6, the Fixico in Section 20-9-6, the Jones in Section 26-9-6, the Strothers in Section 27-9-6, the Reed in Section 8-9-5, and the Blandin in Section 30-7-5. It is believed the Phillips company will extend its pipe line from Earlsboro Field to the Oklahoma City Field. It has considerable storage room at Earlsboro and the crude could be shipped there to the refinery at Okmulgee.

During the week Anderson-Kerr, Inc. and others' No. 1 Warsaski, SE cor. SW SE, Section 34-12-3w, in the northern part of the Oklahoma City Field, was completed flowing 1,890 bbls. of oil the first hour, and then shut in. The gas was estimated at 45,000,000 feet a day. The production was found in the Wilcox sand at 6,329-6,450 feet.

The Gulf Production Co. of Oklahoma's No. 12 Garrett-Rucker, SE cor. SW NW, Section 2-11-3w, which is located on two city lots, in Oklahoma City, of Block 1, Banner addition, topped the Wilcox sand at 6,221 feet and drilled to a total depth of 6,282 feet where it was cleaning out preparatory to making a production test.

Outside Tests Rumored

A test may be started northwest of Oklahoma City on one of the blocks in the area. It is expected to be a community well with several of the companies pooling their acreage and joining in drilling the well. D. Replogle has assigned the Gypsy Oil Co. a lease on the NE NE, Section 12-12-4w, giving the company some protection within the Carter Oil Co.'s block. C. H. Frost has assigned to the Mid-Continent Petroleum Corp. a lease on the N half SE, Section 34-12-4w, located about 2 miles west of the city.

Rumors of wildcat tests in Oklahoma County have been discussed several times. These rumors indicate the Carter Oil Co., Gypsy Oil Co. and the Sinclair Oil & Gas Co. may drill a community test northwest of Oklahoma City. The Carter Oil Co. has a block of acreage in the area and the Gypsy has a block west of the Carter, while the Sinclair has some scattered acreage in the general vicinity.

When the Mid-Kansas Oil & Gas Co. purchased the half interest from the Ramsey Petroleum Co. in the discovery well and acreage in SW cor., Section 32-14-4w, it is believed to have removed the possibility of immediate development of that area.

It has been reported that a test may be drilled in the center of Township 14-4w, but the acreage is divided into so many different divisions there is much doubt of any immediate prospective development work.

New locations made in the Oklahoma City Field include Smith and others' No. 1 Packing, C S half NE NW NW, Section 3-11-3w, and the Gulf Production Co. of Oklahoma's No. 1 in the CEL NE NE SW, Section 22-11-3w.

Taking Care of Underage

Further revision of the proration of oil production in the Oklahoma City Field is indicated at the next hearing February 11. It has been suggested that all other wells may be shut in, until the underproduced wells have caught up. It is believed that the Oklahoma Corporation Commission is considering allocating the daily allowable production from the field to the underproduced wells only.

In the recent order, effective February 1, the commission estimated the underage to be approximately 3,350,000 bbls. at that time. This figure is due to show a decline during the first 15 days of February, as the order specified that 50,250 bbls. a day was allocated to the underproduced wells. It is expected the underage will show a reduction of approximately 750,000 bbls. by February 16.

There may be opposition to the revision of the proration in the Oklahoma City Field, but the majority of the operators are beginning to realize that the underage situation must be taken care of, or entirely written off, before normal operation of the proration method can be resumed. The underage situation still hangs over the field and the majority of the operators are in favor of getting it out of the way before summer.

The State Corporation Commission has been asked to classify the Springrose Drilling Co.'s No. 1 Henry, NE cor. NW NW, Section 2-11-3w, as a gas well. Completed about three months ago, it has been tested several times with estimates as high as 200,000,000 feet a day. It made some gasoline and sand and has cut the connections and threatened to go wild several times.

Sacred Heart Pool

The recent agreement made by operators in the Sacred Heart Pool, in southern Pottawatomie County, to declare a moratorium on drilling will not be broken until 60 days has expired. The decision to refrain from drilling in the area during the next 60 days covers the territory surrounding the Carter Oil Co. and others' No. 1 Monett, SW cor., Section 34-7-4. It was rumored the Magnolia Petroleum Co. was planning to drill a test on its 160-acre tract in Section 34-7-4, a half mile northwest of the discovery well, but the company declares it will not start any development.

The Carter Oil Co. and others' No. 1 Monett, the discovery well, is estimated from 1,000 to 1,500 bbls. a day from the Simpson sand at 4,170-4,260 feet. The well will be shut in until the 60 days expire.

Magnolia Petroleum Co.'s acreage is located in the N half SW and S half NW, Section 3-7-4. The discovery well located in the SW cor., Section 34-7-4, found oil in the Simpson sand and is shut in for proration. It is not considered of particular importance that the Wilcox sand was not tested in the discovery well

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WILDCAT OPERATIONS IN OKLAHOMA

NORTHERN OKLAHOMA

ALFALFA COUNTY

Company, farm and location—	Remarks:
Smith Brothers' No. 1 Forbes, SE cor. NW NW, Sec. 12-27-11w	S.D. 1,222 ft.
J. W. Bailey's No. 1 Acre, SW cor. NE Sec. 14-24-11w	S.D. 5,502 ft.

ATOKA COUNTY

Campbell's No. 1 Baird, NW NE SW, Sec. 31-1-13	Rig.
Edgerton Edwards' No. 2 Rowland, SE NE NW Sec. 6-1-15	Rig.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w	Rig.
Price-McFann's No. 1 Webster, C SW SW Sec. 34-8-26w	T.D. 2,344 ft.; plugged back to 1,890-1,900 ft.; 1,500,000 ft. gas.
Mid-Continent's No. 1 Schaff, C NE SW Sec. 22-11-22w	Waiting on cmt. to set 430 ft.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-2-22w	S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 3,575 ft.

BLAINE COUNTY

Washoma Oil Co. et al's No. 1 Phillips, C NW SW Sec. 13-19-10w	S.D. 5,115 ft.

CADDO COUNTY

Abernathy & Brown's No. 2 Houston, Sec. 24-6-13w	S.D. 1,115 ft.

CHEROKEE COUNTY

La Piere et al's No. 1 Woods, C SE SE Sec. 27-17-21	S.D. 1,504 ft.

COAL COUNTY

Radial Oil Co.'s No. 1 McGraw, NE NW Sec. 2-1s-8	S.D. 1,450 ft.
McCraw Oil Co.'s No. 1 Ward, NE SE, Sec. 35-1-8	Drlg. plug; showing 2,000,000 ft. gas 1,765-1,846 ft.; mudded off gas; S.D.; rig moved.
Whitney et al's No. 1 Miller, SE NE Sec. 10-2-8	S.D. 760 ft.

COMANCHE COUNTY

G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

GARFIELD COUNTY

E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

GARVIN COUNTY

Malarnee et al's No. 1 Phillips, NE SW SE Sec. 24-2-2w	S.D. 4,820 ft.

GREER COUNTY

Dovell et al's No. 1 Capell, NW cor. Sec. 1-7-22w	5,000,000 ft. gas 1,455-65 ft. T.D. 1,760 ft.
French's No. 1 Murphy, SW NW Sec. 23-7-21w	S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Harrison, CWL SE NE Sec. 14-9-19	S.D. 650 ft.
Ault et al's No. 1 Hall, NW SW SW, Sec. 14-9-19	S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW, Sec. 25-19-9	S.D. 200 ft.
Holden's No. 1 Phillips, SE cor. Sec. 3-9-18e	S.D. 1,860 ft.
Marion Oil's No. 1 Sanders, NW NE NW, Sec. 10-9-18e	S.D. 2,387 ft.

KAY COUNTY

Harris & Haun's No. 1 Watson, SW NW, Sec. 28-28-1w	Drlg. 500 ft.
W. H. Atkinson et al's No. 1 Hayes, SE NE Sec. 24-28-3	U.R. 1,899 ft.
Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1	Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2	S.D. 2,693 ft.
Blackwell Oil Co.'s No. 1 Harshman, Sec. 2-26-1w	Rig on ground.

KIOWA COUNTY

Christian's No. 1 Jones, NE SE Sec. 8-7-18w	S.D. 820 ft.

LATIMER COUNTY

P. English's No. 1 Unknown, NW SE, Sec. 16-6-19	S.D. 1,542 ft.

LE FLORE COUNTY

Dowd et al's No. 2 Thomas, SE NE, Sec. 16-3-25	S.G. 1,194-1,248 ft; shot with 30 qts.

(Continued on Page 66)

Ellsworth Arch Proves Not Dependable

Offsets to Big Wells May Be Dry, Which Makes Drilling Extra Hazardous. New Producing Area in McPherson County

By W. A. Spinney
Staff Correspondent, Kansas Fields

The daily average production of Kansas shows little change from the previous week's report. The production for the week ending February 6, was approximately 97,650 bbls. a day, which is a decline of approximately 500 bbls. a day from the preceding week.

Wildcat operations continue active in the western part of the State where there are 28 active operations at this time. East of the meridian there are approximately five wildcat operations. In addition to these wildcat tests there are scores of other operations. McPherson County continues to be the most active county in the State.

The most recent disappointment in the new area in the southeastern part of Barton County, is Midwest Refining Co.'s No. 1 Berscheidt, C NW SE, Section 12-20-11w, which found water in the Silicious lime at 3,293-3,345 feet. The test failed to find oil at the same level as in the discovery well of Hilligoss and others' No. 1 Isern, Section 12-20-11w. The dry hole is located about 990 feet west and 990 feet south of the discovery well. This location was made at the suggestion of the Kansas Public Service Commission, which at that time was trying to inaugurate a policy of drilling one well to 40 acres in the central part of Kansas. Whether the Midwest Refining Co. will stake another location in the northeast corner of its lease and drill a direct offset to Hilligoss and others' well, has not been announced.

The south offset to the discovery well was the Derby Oil Co.'s No. 1 Berscheidt, NW cor. NE SE, Section 12-20-11w, which is estimated to be a 200-bbl. pumper. It was drilled into the Silicious lime to a total depth of 3,342 feet, where it found water and was plugged back to 3,329 feet.

Operators with leases in Barton, Stafford, Rice and Ellsworth Counties are at loss to know what to expect from wells drilled in these counties along the Barton or Ellsworth Arch. The inability of offset tests to find production in the Silicious lime has been disappointing. Several wells offsetting large oil wells have been dry holes or small producers.

Schurr's New Potentials

Umpire L. R. Pickrell has issued new potentials for the Schurr Pool in Rice County. The allowable remains unchanged, the operators are permitted to produce 15 per cent of the potential. The potential tests as of February 1, were as follows:

Company and well—	Potential	Allowable
Phillips Pet. Co.'s No. 1 Mezger	1,377	207
Phillips Pet. Co.'s No. 2 Mezger	1,247	187
Producers & Refiners' No. 1 Thompson	689	103
Producers & Refiners' No. 2 Thompson	1,620	243
Slick, Pryor et al's No. 1 Mezger	886	133
Slick, Pryor et al's No. 1 Schurr	742	111
Slick, Pryor et al's No. 2 Schurr	1,062	159
Slick, Pryor et al's No. 3 Schurr	1,540	231
The Texas Co.'s No. 1 West	998	150
Vickers Pet. Co.'s No. 1 Binger	1,380	207
Vickers Pet. Co.'s No. 2 Binger	347	52
Vickers Pet. Co.'s No. 3 Binger	100	50
Total	11,988	1,833

Ritz-Canton's Allowable

The umpire also advises that the proration program in the Ritz-Canton Pool in McPherson County remain the same in the first part of February, as it was in January. It appears there is no material change in the nominations of the purchasing companies and the operators are authorized to continue producing the properties on the same basis. The Viola lime wells with a potential of 72,297 bbls. are permitted to produce 9 per cent of their potential, and the chat wells with a potential of 42,929 bbls. a day are permitted to produce 13.2 per cent of their potential. The total potential of the field on February 1, was 115,223 bbls. from 118 wells. If there is any change in the pipe line nominations the Public Service Commission will issue new proration orders.

New Producing Area

Stanolind Oil & Gas Co.'s No. 1 Johnson, NW cor. SE, Section 28-19-1w, southeast of production in the Ritz-Canton Field in McPherson County, found a showing of oil in the Viola lime at 3,447-60 feet, and water in the Simpson sand at 3,482-94 feet. The test indicates the east edge of the Ritz-Canton Field is located west of the test. It is located about 1½ miles south and east of production.

The wildcat near the townsite of McPherson, in McPherson County, is believed to have opened a new producing area in the county. The well is located about 6 miles from the nearest production. The new area was opened by the Shell Petroleum Corp.'s No. 1 Johnson, SE cor. SW SW, Section 35-19-3w, which first found a showing of gas at 2,984-94 feet, making 750,000 feet of gas a day. It was drilled deeper to 3,007 feet in the chat formation and is now making 10,170,000 feet of gas a day and spraying oil at the rate of 5 bbls. an hour.

When the first gas was found it was necessary to cement the 8-inch casing on account of the fact that the gas was leaking between the 8 and 10-inch casing. The operators were able to stop this for a while with cement but it broke through again and the operations at the well are shut down. The well is located 6 miles west of the Ritz-Canton Field and 6 miles north of the Voshell Pool.

The well was drilled on a block of 1,120 acres and the company is not obliged to drill an offset at this time as the adjoining acreage on the south is also owned by Johnson. Companies owning leases surrounding the block include Indian Territory Illuminating Oil Co., The Texas Company and Mid-Kansas Oil & Gas Co.

The only Hunton lime producer in the State of Kansas has been shut in by order of the Public Service Commission. Owners of offset acreage petitioned the commission to fix a daily allowable for the well. The well is Frank Hollow and others' No. 1 Church Acre, SW cor.. Section 20-22-3w, Harvey County, which flowed and swabbed 25 bbls. of oil an hour when first completed in the Hunton lime at 3,507-11 feet. It has been making around 120 bbls. a day on an open flow. The Public Service Commission will fix a daily allowable. The operators have been shipping the oil to a local state refinery being unable to secure a pipe line connection.

In Ellsworth County

J. R. Robertson and others' No. 1 Stratman, in Section 1-17-10w, Ellsworth County, made 43 bbls. of oil an hour from the Silicious lime at 3,366-74 feet. The operators are erecting 1,500 bbls. of tankage at the well and when this is completed it is expected the well will be drilled deeper. A pipe line outlet has been made to the tanks by the Stanolind Crude Oil Purchasing Co.

A half a mile south of J. R. Robertson and others' wells the Derby Oil Co.'s No. 1 Stratman, NE cor. NW NE. Section 17-12-10w, found the top of the Silicious lime at 3,262 feet.

Oil From Stripper Wells

The Standard Oil Co. of Indiana has renewed its contract with the Prairie Oil & Gas Co. to purchase 2,000 bbls. a day of stripper oil in the southeastern part of the State. This agreement definitely assures the stripper wells a market outlet for some time to come. The oil from these wells is handled through the Prairie Pipe Line Co.'s line and delivered to the Stanolind Pipe Line Co.'s line after it is gathered by the Prairie. The oil brings market price at the wells. The old contract expires March 1.

Development in the State Line Pool, in Sumner County, may be revived if the Gypsy Oil Co.'s No. 1 Williams, SE cor. SW, Section 16-35-3w, the discovery well now being drilled deeper to the Silicious lime makes a commercial producer. The well found its production in the Wilcox sand at 4,765 feet, where it first made between 1,500 and 1,600 bbls. of oil the first 24 hours. It had declined to about 3 bbls. a day before the company started to drill it deeper. The last depth was reported at 4,791 feet.

Good Well in Greenwich Pool

Another large producer was found in the Greenwich Pool in Sedgwick County, indicating that the area has considerable future possibilities. The big well is expected to revive development in the area which has been dormant for some time. The well is Gypsy Oil Co.'s No. 5 Hamant, NE cor. SW NW, Section 14-26-2 and it made 100 bbls. an hour from the chat at 2,865-68 feet. The well swabbed 2,469 bbls. of oil the first 24 hours. It will be prorated. This is the first well completed in the Greenwich Pool, in several months, where it is believed there are scores of undrilled locations. The well is one of the best yet completed on the company's lease. It was showing a small amount of water, about a quarter of a bailer per hour. The source of the water has not been determined, whether it is from the bottom of the hole or from behind the casing. The location of the well is a little over a quarter of a mile northeast of the discovery well in the area.

Butler County

Bennett & Abel's No. 1 Jones, NW cor. NE NE Section 25-25-4, has been abandoned at 723 feet.

Cowley County

Deal and others' No. 1 Bennett, Lot 1, Block 47, Musgrove addition to city of Winfield, Section 22-32-4, has been com-

(Continued on Page 69)

WILDCAT OPERATIONS IN KANSAS

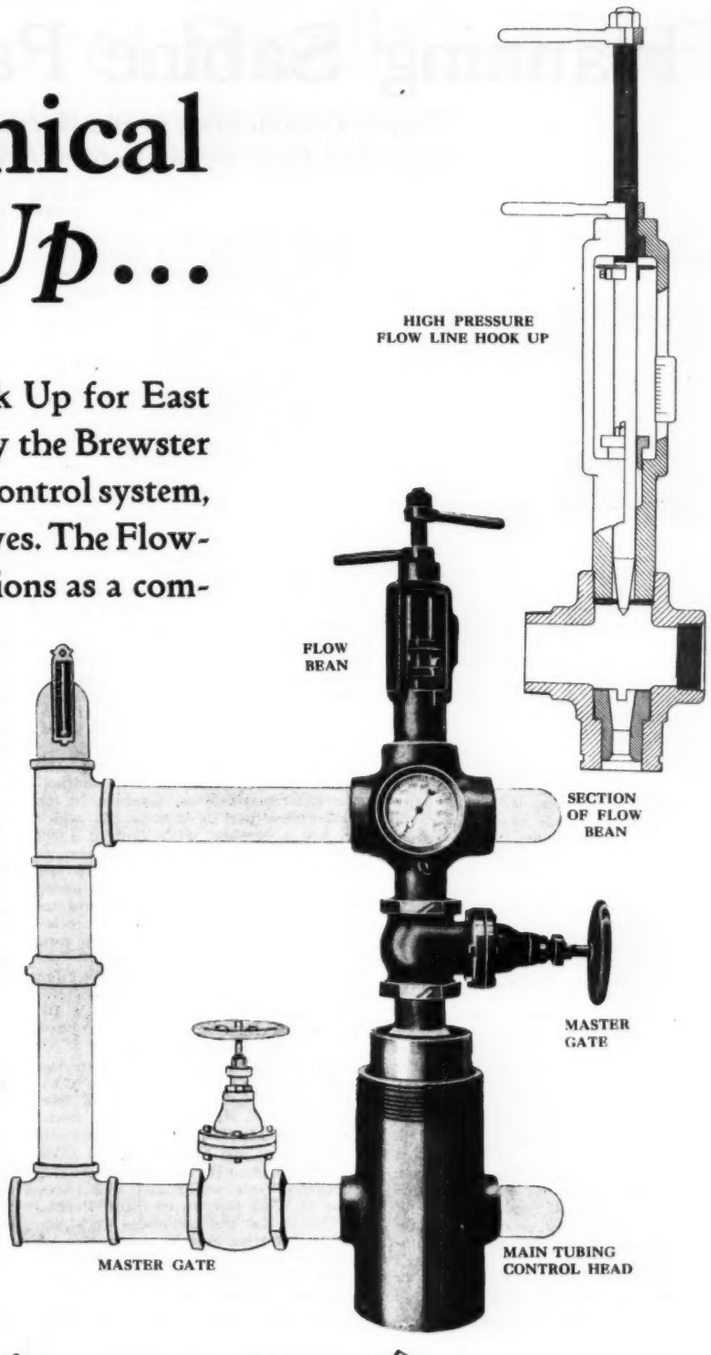
(Descriptions are East unless marked otherwise)

Company, farm and location—	Remarks:
BARTON COUNTY	
Syndicate Oil Co.'s No. 1 Bortez, NW SE SE, Sec. 3-18-12w	Drlg. 3,625 ft.
Skelton Oil Co.'s No. 1 Ott, C SE SE, Sec. 16-19-14w	S.O. 3,225-28 ft; 3,304-10 ft. wtr.; fishing 3,375 ft.
McCool et al's No. 1 Tsern, NW SE NE, Sec. 12-20-11w	S.O. 3,313-29 ft; pumped 600 bbls. per day.
DICKINSON COUNTY	
Severe et al's No. 1 Lavengood, NE SW, Sec. 13-13-2	S.D. 4,752 ft.
ELLSWORTH COUNTY	
R. Gear et al's No. 1 Sanberth, C SW SE, Sec. 29-16-9w	S.D. 50 ft.
Alyward et al's No. 1 Stratman, SE NW SE, Sec. 1-17-10w	Siliceous 3,255-71 ft.; 117 bbls. 2 hrs.; shut in; estimated 2,000 bbls.; no pipe line connections.
Aladdin Pet.'s No. 1 Stoddenberg, C SW, Sec. 22-16-10w	Siliceous lime 3,332-47 ft; estimated 1,500 bbls. a day; shut in.
FINNEY COUNTY	
National Ref. Co.'s No. 1 Wells, C SW, Sec. 13-23-30w	Drlg. 3,750 ft.
HARVEY COUNTY	
Liggett et al's No. 1 Davis, SW SE NE, Sec. 7-24-1	S.D. 2,500 ft.
KINGMAN COUNTY	
Skelly Oil Co.'s No. 1 Miles, NE cor., Sec. 30-27-10w	1,635-40 ft., 2,000,000 ft. gas; at 2,005-20 ft., 6,000,000 ft. gas; at 1,133-42 ft., 3,000,000 ft. gas; showing oil 3,385 ft; T.D. 3,504 ft.
Panhandle Drlg. Co.'s No. 1 Wetheral, C SE NW SW, Sec. 20-28-10w	Drlg. 100 ft.
McPHERSON COUNTY	
Twin Drlg. Co.'s No. 1 Farver, SW SE, Sec. 16-20-1w	Drlg. 2,216 ft.
Shell Pet. Corp.'s No. 1 Johnson, SE SW SW, Sec. 35-19-3w	Top chat 2,98[illegible]-94 ft; 1,000,000 ft. gas; C.O.
MORTON COUNTY	
Hydraulic Oil Co.'s No. 1 State Land, NW SE, Sec. 22-34-43w	T.D. 3,640 ft; temp. abd.
MORRIS COUNTY	
Allender et al's No. 1 Wycoff, C SW SE, Sec. 5-17-7	S.D. 105 ft.
Urschel et al's No. 1 Bersuch, NW SE NW, Sec. 10-17-7	Fishing 915 ft.
Hankerson et al's No. 1 Cessman, SW SE, Sec. 24-16-9	S.D. 2,625 ft.
NORTON COUNTY	
Richards et al's No. 1 Colby, Sec. 17-4-21w	Rig.
OSAGE COUNTY	
Briggs & Smith's No. 1 Wood, SE NW, Sec. 21-14-15	S.O. 2,190-2,200 ft; S.D.
RAWLINS COUNTY	
J. G. Durham et al's No. 1 Weaver, SE cor., Sec. 3-2-36w	S.D. 3,925 ft.
Jarvis & Wright's No. 1 Rainbow, NW SE, Sec. 33-22-7w	Location.
RICE COUNTY	
Gypsy Oil Co.'s No. 1 Steckel, C NE NW, Sec. 31-19-10w	Drlg. 1,610 ft.
Cress et al's No. 1 Sharp, SE NE, Sec. 13-20-10w	S.O. 3,107-15 ft; Siliceous 3,320-36 ft; 210 bbls.; completed.
RUSSELL COUNTY	
J. Brennan's No. 1 Waly, CNL E½ NW, Sec. 29-13-11w	Rig.
T. Palmer et al's No. 1 Pasek, C SE, Sec. 3-14-11w	Drlg. 1,900 ft.
RUSH COUNTY	
Skelton et al's No. 1 Brock-Hartman, SW SE NE. Sec. 4-18-16w	S.D. 50 ft.
SALINE COUNTY	
Twin Mounds Oil Co.'s No. 1 Weis, C W½ NE NW. Sec. 20-13-4w	S.D. 2,710 ft.
SHERIDAN COUNTY	
Flo et al's No. 1 Shoemaker, SE SW, Sec. 27-7-26w	4,040-45 ft; wtr.; fishing.
STAFFORD COUNTY	
Rosenthal, Stanolind and Amerada's No. 1 Gray, C NE. Sec. 11-24-31w	S.O. 3,829 ft; 500 ft. oil in hole; Siliceous lime 4,017-52 ft; wtr: S.D; shot with 120 qts. 3,840-70 ft; C.O.
STEVENS COUNTY	
Argus Prod.'s No. 2 Christopher, C NE, Sec. 10-33-39w	S.D. 5,521 ft.
SUMNER COUNTY	
Trees Oil Co. and Shell's No. 1 Springate, NE SE SW, Sec. 6-34-2	Drlg. by csg. 2,560 ft.
WASHINGTON COUNTY	
Sincox et al's No. 1 Penwell, NW SE NE, Sec. 16-3-3	S.D. 1,720 ft.

The Economical *Hook Up...*

This typical Flow Line Hook Up for East Texas wells, manufactured by the Brewster Company, Inc., is a complete control system, by using only two master valves. The Flow-Bean or Control Valve functions as a complete shut-off, an exclusive feature in the design of the control head to conserve the gas. By having the gas entirely cased off between the casing and the tubing, no gas comes through the Flow Lines thus causing a longer flow of the well.

The Brewster Tubing Head and Flow-Bean are made from Chrome Nickel Steel tested at 3,000 pounds working pressure.



The Brewster COMPANY~INC.
Shreveport, Louisiana

Warehouses: The Iverson Specialty Co., Oklahoma City, Oklahoma, Phone 2-2833; The Brewster Houston Store, 2000 Harrington Street, Capitol 2031.

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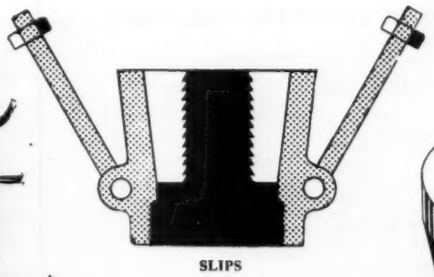
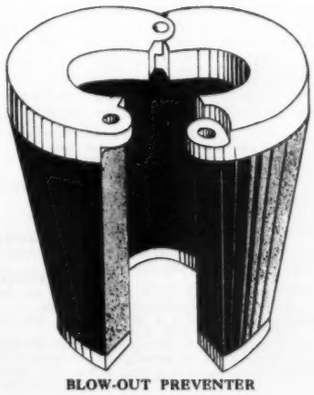


BREWSTER TUBING CONTROL HEADS. To keep the well under control at all times Brewster has designed the Tubing Control Head. This Control Head is made of Chrome Nickel Steel, tested under 3,000 pounds working pressure. A Slip Bowl is used with slips for any sized tubing and a full opening is provided for drilling through and passing Tube Catcher. Also a Blow-Out preventer is furnished to fit in the Slip Bowl.



Planning Sabine Parish Development

Eleven Completions in the North Louisiana, Arkansas, Mississippi and East Texas Border Area. Five Locations at Zwolle

By J. R. Crumpton
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Feb. 8.—Announcement by the Langbridge Oil Co., of Shreveport of the sale of 4,200 acres of leases surrounding its wildcat producer, No. 1 Stephens, Section 17-9-11, in the northern part of Sabine Parish, was the outstanding development in this division during the week. The transfer was made to Frank Foster, Inc., and the East Texas Refining Co. for a cash consideration and an over-riding one-sixteenth royalty on the entire tract. The contract also calls for two wells to be drilled to the pay horizon of that area, the first of which is to begin not later than March 1. The discovery well and 40 acres upon which it is located, together with two other 40-acre tracts in the block is owned by Pugh and Hickman, local drilling contractors, and was not included in the sale.

The wildcat was completed in October, 1931, and has maintained a steady flow of from 30 to 50 bbls. daily of 39 gravity oil from 3 feet of sand at 3,366-69 feet. The new producing area is about 5½ miles southeast of the Pleasant Hill Field and 10 miles north of the Zwolle chalk rock field. The new owners are taking steps for immediate development of the area, and if successful, will probably build a small refinery to take the production. Mr. Foster, of Frank Foster, Inc., is well known in local oil circles, having operated in the North Louisiana and Arkansas fields during their development. His most recent activities have been in the East Texas Field of Gregg and Rusk Counties. The Langbridge Oil Co. is headed by H. B. Langford of Shreveport.

Week's Completions

The week's 11 completions resulted in 3 oil wells, 3 gas wells and 5 dry holes. The Zwolle Field of Sabine Parish continued to hold the center of interest, furnishing all of the oil producers, two of which confirmed good production in recently opened extensions. In the southeast part of the field, W. F. Lacey's No. 1 McNeely, Section 14-7-11, had an initial flow of 600 bbls. daily from 2,468 feet. The well is three-fourths of a mile northeast of Lyons and Neely's No. 1 Clanan, the extreme southeast producer, and between this test and two good producers in the northern part of Section 12.

In the western part of the field, the Coates Petroleum Co.'s No. 1 Parie, Section 2-7-13, confirmed last week's indications by flowing from 20 to 60 bbls. per hour through small chokes from a total depth of 2,405 feet. The well is three-fourths of a mile west of previous production, and is good for 500 bbls. daily of pipe line oil. One and one-half miles southwest of the Coates well, Rush & French's No. 1 Martinez, Section 11-7-13, which was completed a week ago flowing 2,880 bbls. of fluid, 50 per cent salt water, has sanded up and ceased to flow. The operators are washing and swabbing in an effort to revive the flow, but it is feared that an increasing amount of salt water will continue to cut down the production. A test in the southern part of Section 1-7-11, eastern extension, has every indication of being a good producer.

Eddie Self and others' No. 1 Jacobs, after making several good heads, is standing with 1,300 feet of oil in the hole at a total depth of 2,508 feet. The test is an offset to the north of Smitherman & Grigsby's No. 1 Gardner, in the northeastern part of Section 12, which has had a constant daily flow of 1,600 bbls. from 2,465 feet since its completion several weeks ago. The Self test has just encountered the cap rock, under which the Smitherman well obtained its big production, and arrangements are being made to core through this cap rock which had a thickness of about 3 feet in the latter test. The other producer for the Zwolle Field was W. M. Coates' No. 1 Bowman-Hicks, Section 2-7-12, a 10-bbl. pumper from 2,441 feet.

Dry Holes in Zwolle

Two dry holes were reported from the Zwolle area. The Ruston Drilling Co.'s No. 1 McGehee, a semiwildcat in Section 28-8-12, northeast of Zwolle townsite production, was dry and abandoned at 2,523 feet, and the Loring Oil Co.'s No. 20 Bowman-Hicks, Section 4-7-12, encountered salt water and was abandoned at 2,595 feet. In Ouachita Parish, the United Gas Public Service Co.'s No. 1 Wiley, Section 8-18-5e, tested dry at 2,450 feet and again at 2,616 feet where it was abandoned. The other two dry holes were wildcats, one in East Texas and the other in Arkansas. In Shelby County, the United North & South Production Co.'s No. 1 Windham, A. H. English Survey, after having a good show of oil and gas, was abandoned at 3,391 feet. The wildcat was located in the immediate vicinity of former tests that developed good shows at various depths. In Little River County, Arkansas, Stephens and others encountered salt water in their No. 1 Dierke Lumber Co., Section 23-15s-16w, and the test was abandoned at 2,939 feet. The paleontological reports from this test gives the top of the anhydrites in the upper Trinity at 2,217 feet with the base at 2,301 feet.

Mississippi Gas Wells

Two good gas wells were reported from the Hinds County area of the Jackson Field in Mississippi. The Consumers Oil & Gas Co.'s No. 1 Interior Lumber Co., Section 1-5n-1e, has an initial estimated flow of 35,000,000 feet of dry gas from 2,411 feet. Although surrounded by producers on three sides, the new gasser is an extension of practically one-half mile to production to the north and east in that part of the field. On the western outskirts of the gas area, the Roell Oil & Gas Co.'s No. 1 Dreyfuss, Section 4-5n-1e, registered a surprise with an estimated initial flow of 30,000,000 feet from 2,456 feet. The well is 1½ miles west and three-fourths of a mile south of the nearest gas producer. The Bethany Field of Panola County, East Texas, furnished the other gasser for this division. The United Production Co. finally completed its No. 11 Werner, D. B. Lewis Survey, as a 1,500,000-foot gasser, coming from 3,665 feet. This test, which is 2 miles east of the Trinity producers in this field, has barren results in the upper and lower Trinity horizons to a total depth of 5,842 feet. The hole was plugged back to 3,650 feet for a test of a good gas show encountered from this depth to 3,665 feet. The Trinity production from this area comes from the 4,700-foot level.

Deep Tests

The deep tests being drilled in this division have developed nothing of interest during the week. The Lion Oil Refining Co.'s No. 9-A Hayes, Section 4-16-15, in the Smackover Field of Union County, Arkansas, is still shut down at 7,255 feet on account of high water. In the Sabine Parish area, R. L. Gay, trustee, is coring lime in the upper Trinity at 4,623 feet in his No. 1 Long Bell Lumber Co., Section 10-8-13. This test is several miles northwest of the proven lines of the field at Zwolle. The Loring Oil Co.'s No. 18 Bowman-Hicks, within the proven area, is recementing to cut off salt water at 4,375 feet, with the total depth at 4,428 feet.

There were five new locations staked in the Zwolle area during the week, most of these in close proximity to the new extensions. The Southland Drilling Co. made three locations as follows: No. 2 Martinez, Section 11-7-13; No. 1 Gilbert Martinez, Section 2-7-13; and No. 1 Patterson, Section 2-7-13. All of these tests are practically offsets to Rush & French's extension, which went into salt water before sanding up. The United Production Co. has made location to drill No. 12 Werner, B. C. Jordan Survey, in the vicinity of Trinity gassers in the Bethany Field of Panola County.

Daily Average Runs

Due to high water in some of the fields, particularly in the heavy district of Smackover, there was a net decline of 1,505 bbls. in the daily average runs from North Louisiana and Arkansas during the past week. The daily average runs from the several pools were:

NORTH LOUISIANA

	Bbls.
Caddo, light	4,790
Caddo, heavy	1,890
Cotton Valley	520
DeSoto and Red River	1,990
Elm Grove	330
Haynesville	5,000
Holly	330
Homer	2,820
Pleasant Hill	330
Sarepta-Carterville	835
Urania	3,180
Zwolle	6,330
Total North Louisiana	28,345
Total previous week	28,835
Decrease	490

ARKANSAS

Champagnolle	1,870
El Dorado	3,100
Lisbon	570
Nevada	1,270
Smackover, light	2,950
Smackover, heavy	22,900
Stephens	660
Urbana	235
Total Arkansas	33,545
Total previous week	34,520
Decrease	1,015
Total both states	61,850
Total previous week	63,355
Decrease	1,505

WILDCAT OPERATIONS IN LOUISIANA-ARKANSAS

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Company, farm and location— Remarks:
Stauffer & Eshleman's No. 1 Caruth, Sec. 40-1n-7e ..... Derrick.

BOSSIER PARISH

Andrews & Davlin's No. 1 Nattin, 100 ft. N, 250 ft. W, C, Sec. 15-22-14 ..... W.O.S.R. 2,890 ft.
Dr. W. N. Hankin's No. 1 Newell, 300 ft. S and W, NE cor., Sec. 13-19-11 ..... S.D. 1,775 ft. for fuel.
H. I. Morgan's No. 1 Strange, Sec. 23-19-11, 660 ft. N and E, SW cor. ..... Drlg. 1,000 ft.

CADDO PARISH

Calatex O. & G. Co.'s No. 1 W. B. Hudson, Sec. 3-16-16, 2,640 ft. E, 2,865 ft. NW cor., Sec. ..... Rigging up.
Louana O. & G. Co.'s No. 1 Hammock, Sec. 32-19-6, 660 ft. N and W, SE cor. ..... Drlg. 700 ft.

CALDWELL PARISH

Carter Bell's No. 1 Taylor, 150 ft. S, 150 ft. E, NW cor. NE SE, Sec. 17-14-4 ..... S.D. 1,100 ft; high wtr.
Hudson et al's No. 1 Burton, Sec. 35-12-2e ..... S.D. 2,950 ft.

CATAHOULA PARISH

National Drlg. Co.'s No. 1 Marsh McMiller, 70 ft. N, 100 ft. W, C, Sec. 26-9-6 ..... T.A. 3,097 ft.

DESOTO PARISH

E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW, Sec. 30-13-15 ..... S.D. for fuel 3,099 ft.
Rellitt Oil Co.'s No. 1 Ganno hrs., 300 ft. S and E, NW cor. NW NE, Sec. 12-11-16 ..... S.D. 1,965 ft.
A. R. Smith's No. 1 Horn, Sec. 16-12-16, NE cor. Sec. ... Rigging up.
A. A. Tutin's No. 1 Mickie, Sec. 7-13-12 ..... Location.
Walters-Nicholson, tr.'s No. 1 Jim Guy, Sec. 3-11-13.... S.D. 1,266 ft.

(Continued on Page 62)

LOUISIANA-ARKANSAS PROVEN AREAS

NORTH LOUISIANA

CADDO PARISH—PINE ISLAND

Company, farm and location— Remarks:
Shreveport Oil Corp.'s No. 2-B Muslow, 1,000 ft. S, 300 ft. E, NW cor., Sec. 32-21-15 ..... S.D. 2,135 ft.
Simplex Oil Co.'s No. 1 Yourse-Glassell, 500 ft. N and E, C, Sec. 13-20-15 ..... S.D. 2,275 ft.

MOREHOUSE PARISH

Southern Carbon Co.'s No. 57 fee, Sec. 9-20-4e, 660 ft. N, 1,317 ft. E, SW cor. ..... Set 8-in. 795 ft; drlg. 948 ft.

OUACHITA PARISH

Carbon Cons.' No. 7 Guthrie, Sec. 50-20n-4e, 5,263 ft. N, 7,475 ft. W of cors. of Secs. 25, 26 and 49, in Sec. 50 ..... Location.

RICHLAND PARISH

United Gas Public Service Co.'s No. 1-B Alice Purvis, Sec. 34-17-6, 81 ft. N, 599 ft. W, of center of Sec. .. Set 6⅝-in. 2,300 ft.

SABINE PARISH—ZWOLLE

Pelican Nat. Gas Co.'s No. 11 La. Long Leaf Lbr. Co., Sec. 10-7-11, 330 ft. N and W, SE cor. NE NW ..... W.O.S.R. 2,592 ft.
Smith et al's No. 1 Hale, Sec. 1-7-13, 330 ft. S and W, NE cor. NW SE ..... Swbng. to test 2,446 ft.
A. F. Tarver's No. 2 Cutrer, Sec. 12-7-11, 330 ft. S and W, NE cor. NW NW ..... W.O.S.R. 2,550 ft.
O. J. Baird's No. 1 Duggan, Sec. 14-7-11, 328 ft. S, 648 ft. E, from C of Sec. ..... S.D. 2,545 ft.
Ray Baker's No. 1 Sabine Lbr. Co., Sec. 1-7-12 ..... W.O.S.R. 2,548 ft.
W. M. Cates' No. 1 Bowman-Hicks, 330 ft. S and W, of C, Sec. 2-7-12 ..... Completed for 10 bbls. 2,441 ft.
Crescent Drlg. Co.'s No. 2 Byrd, Sec. 12-7-11, 330 ft. S and W, NE cor. NW NE ..... Tested dry; W.O. 2,600 ft.

(Continued on Page 62)

Lost Lake Test Proves Small Gas Well

Slight Oil Showing Encourages Hope It May Yet Make Producer. Sweet Lake Deepest Test Abandoned. Good Well at Lake Barre

By Neil Williams
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Feb. 8.—Pure Oil Co.'s No. 1 Mayes, which had given indication of opening a shallow sand on the Lost Lake Dome, Chambers County, and extending production there 650 feet east, blew in as a gas well Friday night, making an estimated 2,000,000 feet daily and registering a pressure of 650 pounds through a three-eighths inch choke. As a gas well, this proved a disappointment to operators who had expected a good oil producer, the sand having shown heavily of oil. The well, however, is being killed to run tubing and as there is a slight oil showing it is possible the well may yet make a producer. Present production is through 9⅝-inch casing seated at 1,800 feet with two joints of 7-inch screen set in the sand.

The sand was encountered from 1,831-73 feet. The top of this was broken but the remainder was solid sand. The well failed to flow by washing and tubing was then pulled and the hole bailed. However, it was necessary to bail only a few times before the well blew in.

Previous oil production at Lost Lake has been in a sand at 2,800 feet overlying the dome, in which nine wells have been completed to date, but development as a whole has met with only mediocre reward as the field now is making less than 200 bbls. daily. No. 14 Mayes is 650 feet due east of No. 11, which made a small producer at 2,830 feet. Some high pressure gas production has been obtained in a sand around 2,000-2,1000 feet.

Sweet Lake

Pure Oil Co.'s No. 5 Yount Lee Oil Co., which was expected to open a new deep sand at Sweet Lake, Cameron Parish, Louisiana, and establish a new deep production record for the coast, has been abandoned. The well flowed 100 per cent salt water when brought in from a sand at a total depth of 7,456 feet. This sand had been looked upon as being very favorable for a good well. The bottom of the hole was 9 feet deeper than Yount Lee Oil Co.'s No. 7 Houssierre-Latrielle at Jennings, Acadia Parish, the present deepest producer on the Gulf Coast. No efforts to work on the well are being made as the hole is small, it having been deepened from a 5,600-foot sand where it previously had been completed as a producer.

Lake Barre

The Texas Company the past week added to its list of good producers on the Lake Barre Dome, Terrebonne Parish, by the completion of No. 1 L.L.&E., which came in flowing an estimated 850 bbls. daily from sand at a total depth of 3,763 feet. Four joints of screen were set in the sand. The well previously had been brought in for a small producer at 3,722 feet but was deepened in an effort to better the production. This is the tenth producer completed on this dome, which is in the marsh land district in the extreme southern part of the parish on the Gulf of Mexico, and where the Texas Company is the sole operator.

At Sulphur

Another good well was brought in at Sulphur, Calcasieu Parish, where Union Sulphur Co. completed No. 722 fee flowing 1,500 bbls. daily from sand at 5,423-32 feet. Production is through a quarter-inch choke with pressure of 480 pounds. This is an old well deepened from a sand at 3,490 feet.

Barbers Hill

At Barbers Hill, Sinclair Oil & Gas Co. completed its No. 11 Wilburn in the 4,400-foot Miocene sand area on the east side of the dome. This well at 4,447 feet, with three joints of 5-inch screen in the sand, came in flowing 700 bbls. of fluid, 21 per cent water, 130 pounds pressure, through a half-inch choke. This company's No. 10 Wilburn also is in the sand at 4,802-10 feet and at latest report was drilling plug to test. No. 9 Wilburn is in sand showing oil below 4,777 feet.

Other new completions included Rio Bravo Oil Co.'s No. 10-A Settegast, west flank of Pierce Junction, which deepened to 4,528 feet, is making 500 bbls. daily; The Texas Company's No. 37 Koehler, east side of Humble, flowing 250 bbls., 4,769 feet; E. M. Wilson's No. 7 W. & P. Gulf fee, northeast side of Humble, pumping 100 bbls. of fluid, 12 per cent water, 1,485 feet; and Gulf Refining Co.'s No. 29 Lutcher-Moore, Starks, Calcasieu Parish, Louisiana, pumping 20 bbls. net oil, 1,137 feet.

Houston Wildcat Dry

Hewitt & Shibe and Gulf Production Co.'s No. 1 Dan Wise, a wildcat on the Fairbanks prospect, northwest of Houston, has been abandoned as dry in shale at a total depth of 4,530 feet. This test is in the W.C.R.R. Co. Survey, Section 11, 3½ miles southwest of the town of Fairbanks.

Other Operations

Barbers Hill, where a Miocene sand play has been under way on the east flank since last August, continues the most active spot but drilling has become more or less routine. No actual new drilling has materialized so far in the Conroe and Beach district of central Montgomery County where last December Strake Oil Corp. completed a wildcat wet gas well, which now is making around 80 bbls. of high gravity oil daily. However, Heep Oil Corp. has about completed rigging up for its No. 1 Cartwright, located over a mile to the northeast of the Strake well and drilling is expected to be started shortly. Although there has been no big flurry of leasing several large blocks are being taken along this trend eastward through Montgomery County and across southern San Jacinto County, and on several of these early drilling is anticipated. Due to a decline in production at Barbers Hill, daily average production of the Gulf Coast for the week is expected to reflect a substantial drop.

Rabbs Ridge

Another extension of deep production at Rabbs Ridge, Fort Bend County, is seen in Gulf Production Co.'s No. 2 Mary Booth Meyers, which picked up the oil sand at 5,064 feet and drilled in to 5,083 feet. Casing has been cemented to test. This test is 600 feet due east of No. 1, completed last December and the two wells are on the extreme north end of the field. This field, in which from three to five rigs have been running, now has only one other active test, this being Cullen & West and Gulf Production Co.'s No. 3 George, located on the south end of the field and a 1,000-foot eastward extension test there.

Pierce Junction

Gulf Production Co. has made location on the east flank of Pierce Junction for a semiwildcat on its Cain lease. The test, No. 9, is 150 feet north of No. 20 Taylor and 290 feet east of the west line of the Cain lease, James Hamilton Survey No. 98, but with the exception of the Taylor well there has been no other production in that immediate vicinity although the location is in what is believed to be the line of production. A rig is up and drilling will be started at once.

At Jennings

Further drilling in Yount Lee Oil Co.'s No. 10 Housierre-Latrielle, deep test at Jennings, Acadia Parish, has been delayed by heaving shale. A total depth of 8,655 feet was reached in the hole but the hole has heaved to 8,620 feet. It is likely that an attempt will be made to run 5⅞-inch casing to protect the hole so far in an effort to go deeper. This is one of a series of deep tests drilled by this company at Jennings and is in the same immediate district where the company has completed three 7,400-foot wells, the deepest production on the Gulf Coast.

GULF COAST FIELDS AND WILDCATS

Week Ending February 6

BARBERS HILL—CHAMBERS COUNTY

Company, farm and location—	Remarks—
Bashara Oil Co.'s No. 2 Tarbutton, Henry Griffith League, 25 ft. W of Texas Gulf Producing Co.'s No. 2 Tarbutton	Derrick.
R. E. Ferrell's No. 2 Wilburn, Henry Griffith League, 215 ft. W of No. 1 in center of 45-acre tract	Drill stem stuck 2,273 ft.; trying to sidetrack 1,515 ft.
Gulf Prod. Co.'s No. 7 Wilburn, Henry Griffith League, 177 ft. W of No. 6	Cap rock 1,168 ft.; losing returns.
McAlbert Oil Co.'s No. 5 Wilburn, Henry Griffith League, 375 ft. of No. 4	Drlg. sand, shale and lime 1,124 ft.
Rio Bravo Oil Co.'s No. 2 Fisher (W.O.), W. D. Smith Sur., 50 ft. out of NW cor. of tract	T.D. 5,390 ft.; drlg. sidetracked hole in rock 3,464 ft.
Sinclair Oil & Gas Co.'s No. 9 Wilburn, Wm. Hodges Sur., 50 ft. N of S line and 550 ft. W of No. 6	Sandy shale showing oil 4,777 ft.
Sinclair Oil & Gas Co.'s No. 10 Wilburn, Wm. Hodges Sur., 50 ft. S line, 100 ft. W of No. 9	Sand showing oil 4,803-10 ft.; cmtd. 7-in. csg. 4,710 ft.
Sinclair Oil & Gas Co.'s No. 11 Wilburn, Wm. Hodges Sur., 125 ft. W of No. 8 and 45 ft. S of N line	Set 3 joints 5-in. screen 4,447 ft.; comp. flowing 700 bbls. fluid, 21 per cent water.
Sun Oil Co.'s No. 13 J. Wilburn, Wm. Hodges Sur., 200 ft. W of No. 12	Location.
The Texas Company's No. 8 Wilburn, Henry Griffith League, 25 ft. W of No. 5 and 50 ft. N of S line of tract	Drlg. salt 2,125 ft.; top of salt 1,408 ft.
Texas Gulf Producing Co.'s No. 1 Scott, Fitzgerald, 125 ft. from S line and 71 ft. from E line of Strip No. 1, Henry Griffith League	Spudded.
Texas Gulf Producing Co.'s No. 9-B Kirby, Henry Griffith League, 50 ft. out of SW cor. of J. M. Fitzgerald 50-acre tract and 110 ft. S of N line of Kirby tract	Rock 1,181 ft.; cmtd. 13⅜-in. csg. 1,102 ft.
Texas Gulf Producing Co.'s No. 9-H Kirby, Henry Griffith League, 87 ft. W and 130 ft. N of No. 8-H.	Drlg. rock 2,696 ft.

HUMBLE—HARRIS COUNTY

J. E. Burt et al's No. 2 C.O.&G.-The Texas Co. fee, J. B. Stevenson Sur., 450 ft. N of No. 1	Location.
Sun Oil Co.'s No. 27 Bender, W. B. Adams Sur., 250 ft. W of No. 26 in line with No. 25	Drlg. shale 2,803 ft.
The Texas Company's No. 37 Koehler, J. B. Stevenson Sur., 717 ft. E and 603 ft. S of NW cor. of SW fee tract	Set 94¾ ft. of 4½-in. screen 4,769 ft.; comp. flowing 257 bbls. P.L. oil.
E. M. Wilson's No. 7 W. & P. Gulf fee	Comp. pumping 100 bbls. fluid, 12 per cent b.s. and water.
E. M. Wilson's No. 8 W. & P. Gulf fee, 95 ft. from W line and 86 ft. from N line of Blk. 15, J. B. Stevenson Sur.	Rig.

PORT NECHES—ORANGE COUNTY

The Texas Company's No. 1 Polk-Kuhn-Glass, 260 ft. E and 1,545 ft. S of SW cor. Marshall Beaucham Sur., in the T. J. Notgrass Sur.	Drlg. sticky shale 5,504 ft.
The Texas Company's No. 3 Polk, T. J. Notgrass Sur., 500 ft. NE of No. 2 Polk	Derrick.
The Texas Company's No. 3 Kuhn, 587 ft. S and 150 ft. W of NE cor. of the Mary E. Hall Sur. No. 2	Rig.

HULL—LIBERTY COUNTY

Eclipse Oil Co.'s No. 1 Barrow, Jesse DeVore Sur., 50 ft. from N line and 31 ft. from E and W lines 37-acre tract	Rig.
Republic Prod. Co.'s No. 89-A Dolbear, Jesse DeVore Sur., 25 ft. W of No. 89	Abnd. in heaving shale 3,297 ft.

PIERCE JUNCTION—HARRIS COUNTY

Anderson & Plummer's No. 4 Whitehead (W.O.)	T.D. 4,521 ft.; fishing.
Gulf Prod. Co.'s No. 9 Cain, Jas. Hamilton Sur. No. 98, 150 ft. N of No. 20 Taylor and 290 ft. E of W line of Cain lease	Rig.
Isaacs & Carwile's No. 1 Settegast (W.O.)	T.D. 3,393 ft.; pumped salt water; shut down.
Navarro Oil Co.-Texas Exp. Co.'s No. 16 Dooley (W.O.), J. Hamilton Sur., 50 ft. from W line and 487 ft. from S line tract	T.D. 5,535 ft.; plugged to 5,002 ft.
Rio Bravo Oil Co.'s No. 10-A Settegast (W.O.), Jos. Kopman Sur. No. 44, 1,200 ft. S and 350 ft. W of NE cor. of lease	Comp. flowing 500 bbls. daily 4,528 ft.
Rio Bravo Oil Co.'s No. 21-A Settegast (D.D.), J. Kopman Sur., 400 ft. S and 200 ft. E of NE cor. "A" lease	Rigging up to deepen 4,255 ft.
Rio Bravo Oil Co.'s No. 23-A Settegast, Jos. Kopman Sur. No. 44, 1,375 ft. S and 200 ft. W of NE cor. "A" lease	Derrick.

(Continued on Page 60)

MOODY-SEAGRAVES SUIT

HOUSTON, Tex., Feb. 8.—A petition asking that a receiver be appointed for the Moody-Seagraves Co. has been filed here by W. L. Goldston, vice president and geologist for the Cranfill-Reynolds Co., one of the larger Moody-Seagraves interests. The petition alleges the company is insolvent and has defaulted payment on certain notes he holds in connection with stock purchases made by the Moody-Seagraves from him.

Likely Looking Southwest Wildcats

Magnolia Tests on Vacuum Blocks in Southern Jim Wells County and Northwestern Duval Promising. Shallow Pool in McMullen

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Feb. 8.—Magnolia Petroleum Co. had two likely looking wildcats, far removed from each other and both on blocks the administration of which has lately come into its hands from the Vacuum Oil Co. due to the merger of the Vacuum and Standard Oil Co. of New York.

No. 1-B Duval Land Co., in Survey 96 in northwestern Duval County, found a sand at 1,820-27 feet which tested 375 pounds, spraying some oil in 10 minutes on drill stem test, and it set casing and was due to drill in over the week-end. It first created some interest by finding a sand at 1,653-58 feet, but it tested mainly salt water. The location is about 6 miles north of the Government Wells (Schoolfield-O'Byrne) Pool and about 6 miles east of where Vacuum geology resulted in a producer with the first test drilled on the lease in Survey 293 a year or so ago.

Down in southern Jim Wells County on another Vacuum block, Magnolia Petroleum Co.'s No. 1 Seeligson set 8¼-inch casing at 3,414 feet after a drill stem test had been tried and showed some oil. A core was run to get a better drill stem test, but the second attempt was not very successful either, so casing was set and it is due to drill in some time this week.

Shallow Pool in McMullen

V. G. Schimmel has opened a shallow pool in central McMullen County, about 14 miles southwest of the Calliham oil pool. His No. 1 Hale, intended for a much deeper test, got around 8,000,000 feet of gas from two sands, one at 370-382 feet and the other topped at 400 feet, which is the present total depth of the well. It was first thought to go on through it but the volume was too great and too important to pass up and another hole will probably be started for a deeper test. The well is on the Two Rivers ranch. Casing was set and it will probably be brought in this week.

Pettus Is Extended

Pettus in Bee County is growing at both ends. The Houston Oil Co. extended the new southwestern extension to the east and in the direction of the townsite pool 526 feet with No. 3 Portis, which is a 500-bbl. well at 3,919 feet. It was completed early in the week. On the west end of the extension McMurray Drilling Co. and others set casing in their No. 1 Ray, 500 feet west of production, after a drill stem test indicated it would make a producer and The Texas Company's No. 3 Gremmel, a north offset to it, topped the sand at 3,880 feet and looked like a producer also, though it is running seemingly so high it may make mainly gas.

Slick-Seeligson's No. 2 Ray, an east offset to The Texas Company's No. 1 Gremmel, after being completed had trouble with the casing parting and this delayed its getting on production at once. The trouble is not thought serious.

Mauldin has moved his derrick and rig to the southwest corner of his 16-acre tract between the Pettus Township Pool on the east and the extension on the southwest and is getting ready to start another test. Also Slick-Seeligson, Inc., is offsetting the Houston Oil Co.'s No. 3 Portis on the north. The drilling at the west end of the district will call for some more offsets.

Falls County Excitement

Falls County took some attention the past week when the Dixieland Oil Syndicate's No. 1 J. Lee Davis began flowing at 1,001 feet. It is reported in the Georgetown and was making about 100 bbls. a day. Surface casing was set and cemented and the inside string had not yet been cemented. The oil was flowing both inside and outside the casing but is said to be coming from the bottom of the hole. The test is a few miles north of Marlin and north of the shallow production found at Chilton several years ago and which resulted in several wells being drilled there. The Falls County well is being drilled for the company by C. C. Curtis and has been reported by some as the Curtis' No. 1 Davis. Until it came in it is said none of the scouts were carrying it. It is a Balcones Fault zone proposition and seems to indicate some possibilities as to the Edwards lime.

Coast Development

Stanolind Oil & Gas Co.'s No. 1 Stratton, in southwestern Nueces County, has been completed as a small gasser at 4,801 feet after plugging back from 5,002 feet. It was started originally by the Southern Crude Oil Purchasing Co. and with the mergers has been transferred to the new Stanolind Oil & Gas Co. It had some shallower sands that made a little gas also. Deepening to 5,002 feet failed to develop anything better and it was plugged back to 4,801 feet. It is reported at about 2,500,000 feet of gas. It would seem to call for some additional drilling in that district to see if there is not something better. The location is pretty well down to the southwest corner of the county and about 8 miles south and slightly west of the Agua Dulce Field and its importance is partly due to the fact that it lines up with the group of pools along the Missouri Pacific Railroad including the Aransas Pool in San Patricio County, a little northeast of Sinton, the Refugio Field in Refugio County, the McFadden Field in southern Victoria and northern Refugio and the new Bunte well just completed in eastern Victoria County. Anticlines and folds in that territory take about that same general direction, according to geologists.

The Stanolind test is in the Paso Ancho de Abijo Survey and nearly due north of Kingsville in Kleberg County and southwest of Driscoll in Nueces County.

Anything along this general line now attracts considerable attention. The Magnolia Petroleum Co.'s No. 1 Seeligson, in southern Jim Wells County, is about 20 miles farther southwest and on the same line. It is mentioned above as likely to test out this week. Also the John F. Camp wildcat in western San Patricio County near Edroy is about half way between Stanolind's No. 1 Stratton and the Refugio Field and on a line with them. The Camp test will attract a lot of attention as the geology has been pretty well worked out and there is common expectation that along the 125 miles of territory from the Bunte well in eastern Victoria to Magnolia's No. 1 Seeligson in southern Jim Wells County there are likely to be a number of new pools opened.

Laredo District

Daniels & Hill completed their No. 1 Montemayor, the farthest north well in the Escobas Pool, in the second sand for a 200-bbl. well. It was reported last week but was shut in without an extended test to wait for storage. Total depth is 1,484 feet. Since then S.R.C. Oil Co. has put down its No. 6-D Montemayor, a south offset to it, located in the northwest corner of Block 10, Survey 64, and had it on the sand late in the week and about ready to drill in.

L. W. Connor's No. 1 Holbien, in northwestern Jim Higg County, seems to be running pretty good. He had pink shale from 92 feet to 410 feet, and in R. F. Foree's No. 1 Holbien, which was abandoned last week at 2,501 feet and located some distance to the east, there was 1,100 feet of the pink shale. This thinning of the shale in the Connor test seems to give it some encouragement, though it is down only around 1,000 feet at this time. It has had some little gas showings.

Simms Oil Co.'s No. 1 Stropkey, in Goliad County, 1 mile northeast of the two producers in the Slick Pool on the DeWitt-Goliad County line, has been abandoned at 4,450 feet and the company is moving to a location on the Tom farm just over the line in DeWitt County and southwest of the two Slick producers.

Big Lake Oil Co. has arranged to have a big rig transported across the bay to St. Joseph's Island, on the coast at Aransas Pass, and it is expected a test will be spudded in soon for a deep test. Along with other coast work, this will be interesting, partly because it is taking a line of folding farthest to the east of any now being worked and also partly from the fact that a couple of shallow tests drilled on the island some years ago had some light showings of oil.

In Williamson County McLean tried to deepen No. 1 R. C. Miller, which had originally been drilled to 1,830 feet, but after some weeks' work has been unable to get on bottom and is abandoning the hole and will drill No. 2 Miller nearby.

Texas Development Co. has abandoned its No. 1 C. H. Ray in Bastrop County, 1 mile northeast of Elgin, in the northern part of the county. It was an Edwards lime test and got sulphur water in the Edwards at 2,660 feet.

Another Edwards lime test in southern Bexar County does not look very promising. Ewell Neil's No. 1 Watson at 2,328 feet is bailing sulphur water though presumably now in the Buda and not down to the Edwards.

In southern Karnes County over the week-end V. F. Neuhaus' No. 1 Tipps was expected to reach the Pettus sand and was being watched pretty closely. The sand was expected at around 3,550 feet and the hole was nearly that on Friday. A big crowd was expected when it got the sand.

Northeast of it Neal's No. 1 Pettus, in Goliad County, is to be carried to the Pettus sand. It is standing now at 3,988 feet and will go to the Pettus sand or to 4,900 feet.

In eastern Milam County the Red Bank Oil Co.'s No. 2-A Foster is reported to be near the top of the Edwards at 5,032 feet and due to finish this week.

WILDCAT OPERATIONS IN SOUTHWEST TEXAS

ARANSAS PASS

Company, farm and location—	Remarks:
Big Lake Oil Co.'s No. 1 Glesecke on St. Joseph's Island	Moving in.

ATASCOSA COUNTY

American Central Oil Co.'s No. 2 Mary McConnell, 150 ft. W of E line, 300 ft. S of No. 1, Blk. 138, W. C. M. Baker Sur., 3 miles W and ½ mile S from Somerset	T.D. 1,660 ft.; drlg.
Glen Mathis' No. 2 Mrs. C. Martin, 100 ft. SE of No. 1	T.D. 2,980 ft.; S.D.

BLANCO COUNTY

Hardy-Sitton's No. 1 McMillan	T.D. 602 ft.; S.D.
Theo. Hicks' No. 1 Specht, 1,500 ft. from S line, 500 ft. from W line of farm, in Thomas M. Fowler Sur. No. 37 in extreme south point of county	T.D. 1,650 ft.; S.D.
Liles Adams et al's No. 1 Luders, 150 ft. to S line, 1,420 ft. to E line of James Stanford's No. 155	T.D. 1,100 ft.; standing.

BASTROP COUNTY

E. R. Mart's No. 2 Wm. Bahn, 2,000 ft. from E line, 1,300 ft. from S line of farm in James Sandifer Sur.	Skidding derrick from No. 1 Bahn
Sun Oil Co.-Humble Oil & Ref. Co.'s No. 1 Powers, 400 ft. to N and E lines of Blk. 197, Bastrop town tracts	T.D. 2,640 ft.; drlg.
Texas Dev. Co.'s No. 1 C. H. Ray, 800 ft. from W line and 400 ft. from S line of farm, in Thos. Christian Sur.	T.D. 2,660 ft.; abnd.

BELL COUNTY

Bridwell et al's No. 1 Nichols, 150 ft. to W and N lines of farm, N. Roberts Sur.	T.D. 425 ft.
Bridwell et al's No. 1 G. A. White, 550 ft. to E line, 150 ft. to S line of farm, Nancy Roberts Sur., 4 miles SE from Belton	T.D. 537 ft.; drlg.

(Continued on Page 64)

SOUTHWEST TEXAS PROVEN AREAS

ECKERT POOL—BEXAR COUNTY

Company, farm and location—	Remarks:
Williams et al's No. 2 Strunk, Juan Montes Sur.	Rigging up.

PETTUS POOL—BEE COUNTY

McMurray and H. H. Weinert's No. 1 Ray, 150 ft. from N and E lines of lease in J. W. Williamson Sur.	T.D. 3,900 ft.; set csg.
J. M. Davis et al's No. 1-B Ray, 150 ft. to N and E lines of 10-ac. lease, next south of Weinter's, John W. Williamson Sur.	Rigging up.
Houston Oil Co.'s No. 3 Portis, 300 ft. E of No. 2, A. Smalley Sur.	3,914 ft.; comp. 500 bbls.
J. L. Mauldin's No. 2 fee	Rigging up.
Slick-Seeligson, Inc.'s No. 3 Ray, 150 ft. from S and W lines of George A. Kerr Sur.	T.D. 3,892 ft.; comp. 400 bbls.
Slick-Seeligson, Inc.'s No. 4 Ray, N offset to Houston Oil Co.'s No. 3 Pettus	Set surface csg.
The Texas Company's No. 2 Gremmel, 300 ft. W of No. 1 Gremmel	T.D. 3,909 ft.; set csg.
The Texas Company's No. 3 Gremmel, N offset to McMurray's No. 1 Ray	T.D. 3,880 ft.; coring sand.
The Texas Company's No. 4 Gremmel	Making location.
The Texas Company's No. 5 Gremmel	Making location.

COOKSEY POOL—BEXAR COUNTY

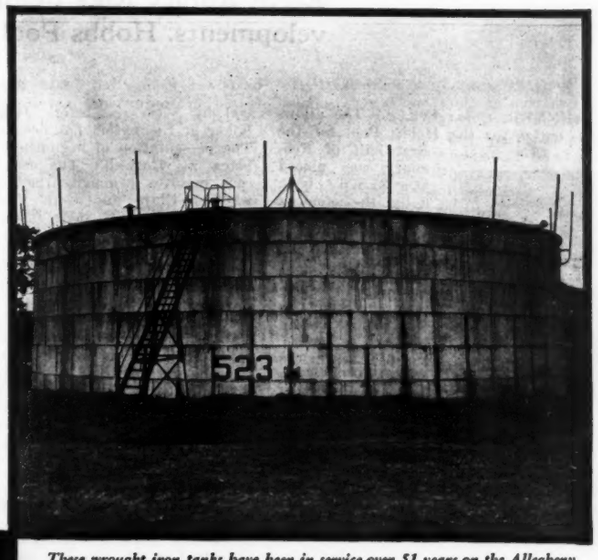
Chiquita Oil Co.'s No. 3 Cooksey, 480 ft. from E line, 330 ft. from S line of tract in J. W. Rialls Sur.	Location.

SALT FLATS POOL—CALDWELL COUNTY

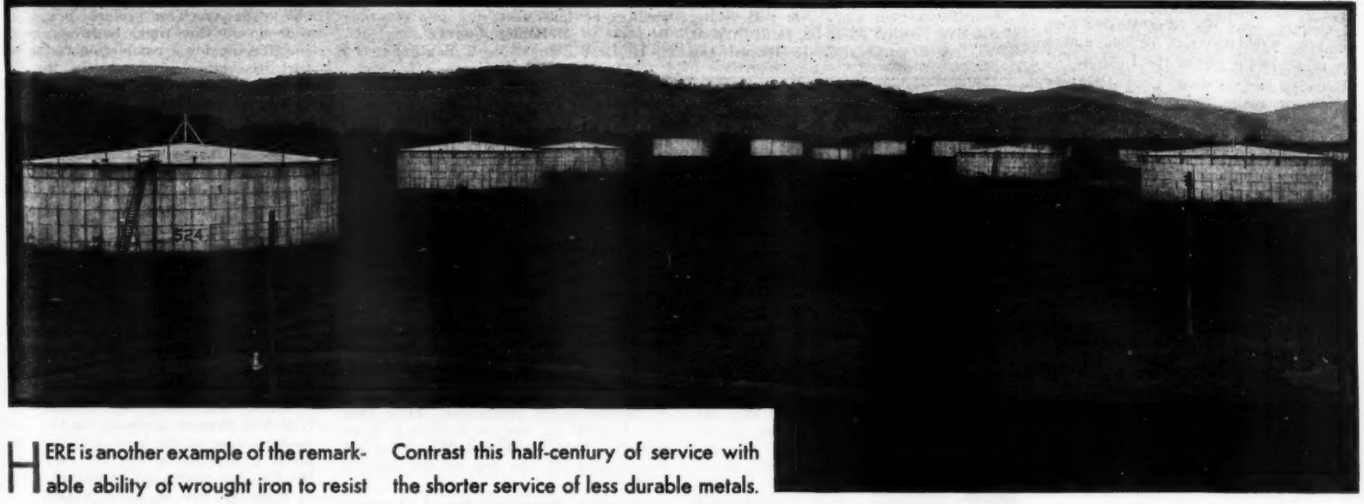
Joe Bruner's No. 1 Malone, 150 ft. to N line, 750 ft. to W line of tr., A. Floyd Sur.	T.D. 2,704 ft.; drlg.
John Storey's No. 1 Dickerson, 150 ft. to N of center of S line of tract, John R. Rains Sur.	Rigging up.

(Continued on Page 66)

Half-Century Tank Service *proves* WROUGHT IRON ECONOMY



These wrought iron tanks have been in service over 51 years on the Allegheny and Homer Tank Farms of the Vacuum Oil Company at Olean, N. Y.



HERE is another example of the remarkable ability of wrought iron to resist corrosion in oil country service.

Sixty-four tanks—all made of wrought iron—all in service since 1880—and all are in excellent condition, as a recent inspection revealed.

Subject to soil corrosion (bottoms), atmospheric corrosion (tops and sides) and crude oil corrosion (internal)—these tanks have again verified the confidence oil country engineers have placed in genuine wrought iron.

Contrast this half-century of service with the shorter service of less durable metals. For instance, a certain large producer has had to replace tops and bottoms on 8 tanks because of corrosion-failure in two years.

Let our oil country engineers bring you additional facts about "hot spot" installations and service records of old pipe lines. Remember that genuine wrought iron has no satisfactory or economical equal for combating corrosion in oil country service. A. M. Byers Company, Pittsburgh, Pa. Established, 1864.

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Greasewood Test May Make Good Well

Eight Rotary Rigs Being Held in That Area for Spring Developments. Hobbs Pool Allowable Put at 31,876 Bbls. Daily

By Tolbert R. Ingram
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Feb. 8.—The allowable outlet for the Hobbs Pool for the first half of February was placed at 31,876 bbls. daily, the same as for the last half of January. A market for 5,000 bbls. additional is in sight as soon as the proration agreement is formally extended. Leonard & Levers' No. 6 State, in the Maljamar area in Eddy County, had 1,700,000 feet of gas at 2,325 feet, extending the proven area half a mile.

The Continental Oil Co.'s No. 1 Gadbois, more than half a mile south of the nearest producer in the Greasewood Pool, in Colorado, is drilling in and looks as if it will make a good well. The Niles tract at Greasewood, which offsets production, is in litigation. Eight rotary rigs are being held in the Greasewood area for spring developments. A wildcat in Archuleta County, near the New Mexico line, is making 1,000,000 feet of gas and a show of oil in the top of the Lakota.

Wyoming had no completions. One new location was made. Salt Creek producers are protesting the recent order of the Secretary of the Interior reducing the allowance for basic sediment.

One completion was reported in the Border Field in Montana.

NEW MEXICO

Lea County

The proration schedule for the Hobbs Pool (No. 39) used for the period of January 16 to 31, providing for a daily allowable of 31,876 bbls. for the entire field will be in effect for the first half of February without any changes, as announced by Umpire C. G. Staley. The plan of shutting in wells one day each week, which was placed in operation by a number of the operators in December, but subsequently abandoned, again is in effect. The 12 wells showing water on the western and southwestern edges are hold down production one-seventh to offset the reduction which would result from the adoption of a holiday one day each week. The agreement signed by the operators and J. F. Hinkle, commissioner of the New Mexico land office, extending proration for a year from January 10 still is awaiting the signature of Governor Seligman. E. G. Allen, chairman of the executive committee in charge of proration, has forecast an increase in the allowable outlet for Hobbs contingent upon the approval of the agreement by the governor. He has advised Governor Seligman he has located additional markets for 5,000 bbls. daily, of which 2,000 bbls. will be taken by the Shell Pipe Line Co. and 3,000 bbls. by the Humble Pipe Line Co. He expressed the belief that Hobbs will return to seven-day production basis early in the spring.

It probably will be several months before the six committees appointed to study plans for unitizing the Hobbs Field will complete their tasks. These committees, composed of petroleum engineers, are gathering data on various phases of the problems involved in the attempt to bring all lease and royalty owners into an agreement. No immediate action on the ratification is likely.

The hearing of evidence in the suit of J. M. Wooley and others versus the Shell Petroleum Co. and others, involving the title to the S half, Section 31-18-38, in the Hobbs Pool, valued at around $500,000 by witnesses, before Judge H. A. Kiker at Lovington, has been completed. The presentation of arguments will take place at Roswell. The issue of the case involves primarily the question of whether Clara and Cora Fowler were legally adopted by their foster parents, Pascal and Mary Fowler. The evidence showed that the adoption papers were made out in Texas before the tract was homesteaded 20 years ago and that all the provisions of the adoption had been executed, but that the papers never were placed on record. Thirty-three heirs claim an interest in the estate of the foster parents and a sister, and approximately that number of attorneys are representing them. The Shell Co. has two producing wells on the southeast quarter of the section and the Vacuum Oil Co. one well on the southwest quarter.

Midwest Refining Co.'s No. 11 State, C NE NW Section 4-19-38, is drilling at 3,902 feet in lime, and its No. 8 Byers, C NW NW Section 3-19-38, is drilling at 2,265 feet in salt. The last named topped the anhydrite at 1,578 feet and the salt at 1,725 feet.

Continental Oil Co.'s No. 6-B State, C SE SW Section 33-18-38, is drilling at 3,345 feet in anhydrite. It topped the brown lime at 2,780 feet and had the first gas at 2,790-95 feet.

Eddy County

Leonard & Levers' No. 6 State, C NW Section 28-17-29, Maljamar area, gauged 1,700,000 feet of gas per day at a total depth of 2,325 feet. It had a show of gas at 2,220-24 feet and an increase at 2,307 feet. It is half a mile northwest of the firm's No. 5 State, a gas well, and southeast of Western Drilling Co.'s No. 1 Green, recently completed as a gasser.

Flynn, Welch & Yates' No. 61 State, SE NE NW Section 32-18-28, Artesia district, is drilling at 1,565 feet in red sand. The sand was topped at 1,550 feet.

R. D. Compton's No. 1 Compton, NE NW NE Section 8-18-27, is drilling at 960 feet in quicksand. It had a hole full of fresh water at 948-60 feet.

Chaves County

Warman Oil Trust's No. 1 Evans, N half Section 15-14-25, Blackdom district, is drilling at 702 feet in lime after setting 8¼-inch at 680 feet.

DeBaca County

Landowners Oil Co.'s No. 1 McAdoo, SW cor. NE Section 16-1s-27, Buffalo Creek, has recovered the tools and is drilling at 4,667 feet.

McKinley County

H. L. Williams' No. 1 Santa Fe, C S half NW Section 19-18-8, Hospah district, is reported abandoned at 1,850 feet, at which depth it has been standing for several months.

COLORADO

Weld County

The Continental Oil Co.'s No. 1 Gadbois, C SE SW Section 24-6n-61, a little more than half a mile south and slightly west of No. 1 Patterson, the discovery well at Greasewood and the nearest producer, is drilling into the Muddy sand and gives evidence of being a good well. Completion of this well has been delayed since October by a fishing job and after several months' attempt to recover the tools they were drilled by. The Muddy sand was topped at 6,670 feet and was drilled to 6,680 feet when operations were temporarily suspended on account of a severe snow and wind storm. Ten feet in the sand it was showing considerable gas and made several flows of oil by heads. Weather conditions have moderated and drilling is expected to be resumed this week. Pending the deepening of the hole into the sand, officials of the company have given out no estimates as to probable capacity. The performance of the well up to this time, however, is very encouraging for a completion comparable with the other producers in the field. The elevation of the Muddy sand, based on sea level datum, is approximately the same as the discovery well, not making any allowances for additional hole in drilling by the tools.

The Continental well will bring the number of producers in a north-south line up to four, the outside wells being a mile apart. One-fourth of a mile to the southwest, Greeley Oil Co.'s No. 1 Gadbois is about a 20-bbl. well at this time and one-half mile west of the most northerly well Reiter-Foster Oil Co.'s No. 1 Johnson-Juhl was a failure in the Muddy and Dakota sands. No wells have been drilled to the north, east or southeast of these producers and the possibilities of the pool in those directions are still unknown.

Greeley Oil Co.'s No. 1 Gadbois, C NW NW Section 25-6n-61, on the southwestern edge of the pool, which is being given a production test by Continental Oil Co., has shown no important change. It probably will be given a shot in an effort to loosen up the sand, and if this does not make it into a commercial well, it may be drilled down to test the Dakota and Lakota. The Dakota has been tested in only one well which was off structure, and the Lakota has not been drilled.

The rotary rig moved into the field by the Ohio Oil Co. has been stored on its lease at Gearhart and no statement has been made as to where it will be used. There are now eight rotary rigs being held in the field in anticipation of drilling in the spring. While no locations have been announced, it is expected the Ohio and Continental companies each will drill at least one well; several tracts held by the Platte Valley Co. must be drilled under lease provisions; Frank E. Kistler & Co. have two state leases calling for wells this spring; the Ohio company probably will have to offset the Continental's new Gadbois well; and one or two other operations are in sight. At least one test west of the Greasewood Field is scheduled for this year and a joint well by holders of leases in the Raymer - Buckingham - Stoneham district to the northeast is in prospect and the Colorado Associated Oil Co. has announced it will drill again north of Fort Morgan.

The Texas Production Co. is engaged in transferring its leases and property in

(Continued on Page 72)

POTENTIAL FIELD INDICATED BY TWIN RIVER AND KEHO LAKE

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Feb. 6.—In the border area of southern Alberta, Parco Oil Co.'s No. 1, L S D 16, Section 34-1-20w4, on the Twin River structure, has completed plugging back from 4,072 feet and making water shut off, and is now testing a 35-foot oil sand encountered in the top of the Madison lime around 3,870 feet. The test last fall got the Ellis-Madison contact at 3,858 feet and encountered the sand 12 feet in the lime, bailing considerable 31.5 gravity crude. Drilling was continued into the Madison at the time, a heavy water flow being encountered with no further oil or gas. Location is on a Nordon Corp. lease, 25 miles west of Milk River and 6 miles north of the Montana boundary. Parco Oil Co. is the Canadian subsidiary of the Producers & Refiners Corp., and this is its first test in the Canadian fields.

In the Keho Lake area, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, has been cemented back from the Madison lime to the water sand in the Sunburst, and is preparing to sidetrack lost tools and test the oil sand encountered in the top of the Madison lime at 4,920 feet. Oil here was encountered in the same horizon as in Parco's Twin River well, indicating a potential field covering a considerable area. The shows encountered in the Madison in these two tests have stimulated interest in Texas-Imperial's No. 1 wildcat, LSD 14, Section 22-8-22w4, on the Lethbridge structure, which is in the same general area and is reported drilling below 4,528 feet and getting close to the Ellis-Madison contact.

In the South Turner Valley, active drilling is at the moment pretty well limited to the Mercury tract, where two new tests are getting close to production in the deep lime. Miracle Oils' No. 3, LSD 11, Section 4-19-2w5, is drilling 147 feet in the lime around 5,627 feet depth and getting close to the main wet gas horizon. The test has the longest string of large casing in the field, and is in good shape to handle heavy production. Hylo Oils' No. 1, LSD 12, Section 4-19-2w5, is reported to have resumed drilling after setting casing on the top of the lime at 5,430 feet.

Canadian Royalties' No. 1, formerly Spray Oils' No. 1, LSD 9, Section 5-19-2w5, has been checking over drilling equipment and will resume drilling in about a week. The test was carried by Spray Oils, Ltd., to 2,330 feet and will be completed by the new company.

In the far south, Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, is reported standing cemented at 2,850 feet.

Central Turner Valley

In the Central Turner Valley, Canada Southern Oil Co.'s No. 3, LSD 16, Section 1-20-3w5, is preparing to resume drilling after cementing 30 feet in the limestone at 3,827 feet. This test was formerly Regent Oil Co.'s No. 3, but was taken over last fall and deepened by W. E. McLeod and Hugh Walsh. It offsets McLeod Oil Co.'s No. 4 producer. In the same section, McLeod Oil Co.'s No. 1 has redrilled to below 3,700 feet, using small shots of dynamite and then cleaning out. The well was at one time a good producer from the lime at around 3,850 feet.

Alberta Government Report

By direction of R. G. Reid, minister of lands and mines for Alberta, the following statement covering oil production in the Alberta fields for December, 1931, was recently released:

"Alberta oil production for December, 1931, was as stated below and compara-

(Continued on Page 69)

California Curtailment Is Weakening

Sales Agency Letter Stresses Necessity for Immediate Action. Court Asked to Limit Santa Fe Springs Gas Production

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., Feb. 6.—Introduction of the third structure gasoline by major companies and curtailment of refinery operations by several independent refiners as a result of this new policy has had a tendency to soften the crude oil market in Los Angeles Basin fields. Bonuses and premiums have practically vanished except in cases where producers and refiners have signed crude oil contracts for a definite period and at a stipulated price. Spot oil, except in one or two cases, is bringing only market prices and if the third structure gasoline of major companies is reduced any further in price some independent refiners will be unable to meet this reduction on the present crude oil price structure without taking an operating loss. As a result of developments during the past few weeks, major companies are terminating a number of crude oil purchase contracts which have heretofore been handled on a day to day basis. This has caused a softening of crude oil prices and in several cases producers have no outlet for current production. In most cases producers now without sales contracts had previously declined to sell oil to major companies on a contract basis but chose to sell to a group of refiners who have since either passed into receivership or found it necessary to suspend operations. Many of these producers, incidentally, have up to the present time failed to comply with curtailment orders and conservationists are therefore rather unsympathetic.

Major companies are still carrying a large number of crude oil purchase contracts on a day to day basis, and while reluctant to terminate these contracts, may ultimately be obliged to do so if the crude oil market softens and any further retrenchment is necessary. Termination of these day to day contracts would automatically reduce state production of crude oil but would, on the other hand, undermine the existing crude oil price structure for the simple reason that producers would sacrifice this crude to independent refiners at prices substantially below the prevailing quotations of major companies. This in turn would permit the smaller refiner to undersell even the third structure gasoline of major companies. The result of such a vicious cycle is quite obvious. For this reason major companies are expected to carry these day to day contracts in the hope that some definite improvement may take place in the near future.

Production figures during January indicate a definite weakening in the crude oil curtailment program and while a slight improvement was noted during the early part of February there does not appear to be any hope of reducing state production to the present allowable of 456,700 bbls. per day. Umpire Neal Anderson and his staff have been making a determined effort to convince producers of the advisability of meeting curtailment to strengthen crude oil prices but has not met with much success. The umpire recently advised producers that "a larger measure of compliance is necessary to provide a real measure of relief for the oil industry during 1932 and you are respectfully requested to meet immediate curtailment as the urgency of the situation demands immediate compliance."

Sales Agency Letter

The Oil Producers Sales Agency, in a letter to its members, has also stressed the necessity of effecting immediate additional curtailment. Rush M. Blodget, general manager, informed members of the agency that, "you will recall that when the general committee, in December, set a state allowable, the agency withheld judgment and suggested that members adhere to the former schedule until further notice. The agency, as set forth distinctly in the by-laws, adheres firmly to the principle each member be allowed to produce his or its fair share as defined in the by-laws. The curtailment program is a yardstick with which that fair share may be ascertained. The curtailment program as set up in California is administered by the entire industry, under the guideance of the umpire.

"All instrumentalities for determining what is fair or unfair or what is right or wrong in human activities are themselves subject to human frailties. Mankind can only do its best in selecting the best possible persons to make the decisions and apply them. In the present instance the person selected to administer the program has had a most difficult task. He has been a target from all sides, but has been big enough to realize that the shafts aimed at him were not inspired by malice but by that natural resentment which comes from the hardship and distress incident to the general depression and the struggle of all industry to adjust itself to adverse conditions on a basis of fair play.

Confidence in Umpire

"The board feels that Umpire Neal H. Anderson has met the situation with forebearance and patience and has labored earnestly for the application of the new industrial self-restraint and in particular has kept in mind that curtailment cannot endure if it forces any producer to a point below the economic minimum at which he can pay expenses. This is particularly applicable to the small producer. The general principles advocated by the umpire have been to a large extent accepted by the larger factors in the industry including a large portion of the purchasing companies, and the agency in observing the slow and painful but sure adjustment of the curtailment program to the broader standards of fair play has seen fit to extend the umpire a vote of confidence. The agency takes the liberty to assert that while for legal and other reasons it does not vote on the statewide curtailment committee as an agency yet the agency has steadfastly supported the umpire in his efforts to establish just equities.

"This letter is authorized by the board and is intended as an appeal to the membership to make renewed effort to conform to the curtailment program and to the individual allowable set by the umpire as reported to you, and if the figures set for any member are below that economic minimum above referred to that such member lay his case before the engineering staff of the agency and endeavor to lay the facts and figures before the umpire so that the umpire may have a chance to adjust any inequity. The situation is serious. Retail products, made from our crude oil production, are not being marketed in such a manner as to inspire confidence. Perhaps after all, we are not in the aggregate, doing our utmost.

"Your board of directors consists of 21 independent operators, from all fields, experiencing or in contact with all phases of the industry with its hardships, its disappointments, its problems and its hopes. They bring to the meetings 21 viewpoints and by discussion and argument and study try to reach collective opinions for the best interests of all concerned. At this time, however, they are confronted with certain cold and distressing facts which spur them to urge members of the agency, and the entire oil industry to courageously meet this new problem. For instance, they find that California even with the help of Washington, Oregon, Arizona and Nevada, does not consume over 350,000 bbls. of oil daily either in its refined or unrefined state. The rest of the oil must be shipped, stored or remain in the ground. Intercoastal shipments have fallen off, winter consumption has diminished and the purchasers of crude oil already have an excess in storage.

Additional Curtailment

"The board feels that provision cannot be made during this stress to allow oil to be withdrawn from storage but likewise feels the hopelessness of insisting that purchasers buy oil they cannot market and place it in storage. The only answer is additional curtailment which the board is confident will bring about better conditions. The depression is perhaps passing and perhaps is reaching its lowest point. During that low point the agency will do its utmost to market the oil of its members both new and old and feels that it can say with complete confidence that no member of the Oil Producers Sales Agency of California will be left with distress oil during the approaching period. Lastly, let us remember that when we become weary of well-doing that if we each do our own part in stabilization within the limits of our ability it need not concern us as greatly as we sometimes think, if or because another is unfair. Ultimate stability cannot be obtained if we hasten too quickly to match another's delinquencies with like delinquencies on our own part. The board asks you to comply with the curtailment program if it humanly just to you and to come and talk it over if it is not, and obtain relief if any inequities exist."

Court Action Sought

Although Umpire Neal Anderson has been unable to bring the production of the Santa Fe Springs Field down to its maximum allowable of 58,000 bbls. per day, the production of this field will probably be reduced below that figure if James S. Bennett, attorney for the director of natural resources, is successful in his petition to the Superior Court to issue a modification of the preliminary injunction issued last year by Superior Judge Hazlett. This case comes up for hearing February 8 but it will probably be several days before the Superior Court takes any action. The first day or two is usually taken up by the reading of the petition, qualification of attorneys and introduction of briefs and exhibits. It is probable, however, that the court may take some action along about the end of next week, unless of course some unforeseen delay ensues.

The representative of the director of natural resources will ask the Superior Court to limit natural gas production of the Santa Fe Springs Field to a maximum of 80,000,000 feet per day. If the court grants the injunction requested by the director of natural resources it will become effective March 1. The injunction requested will prohibit operators from blowing any wet natural gas into the air or more than 100 feet of dry gas for each barrel of crude oil produced. Producers are also prohibited under this injunction from operating any well without exercising a high degree of care in the selection and adjustment of appliances and in their use for the purpose of keeping oil-producing wells at their optimum gas-oil ratio. The optimum gas-oil-ratio is defined as the smallest number of feet of natural gas which can be produced with each barrel of oil from the same well at the same time and in compliance with the provisions of the order. The injunction sought by the State also prohibits operators from keeping on production any well producing more than 2,500 feet of net formation gas to each barrel of crude oil and from operating any leasehold producing more than one well at an average gas-oil ratio for any month in excess of 2,000 feet of net formation gas to each barrel of oil produced.

Gas Restriction

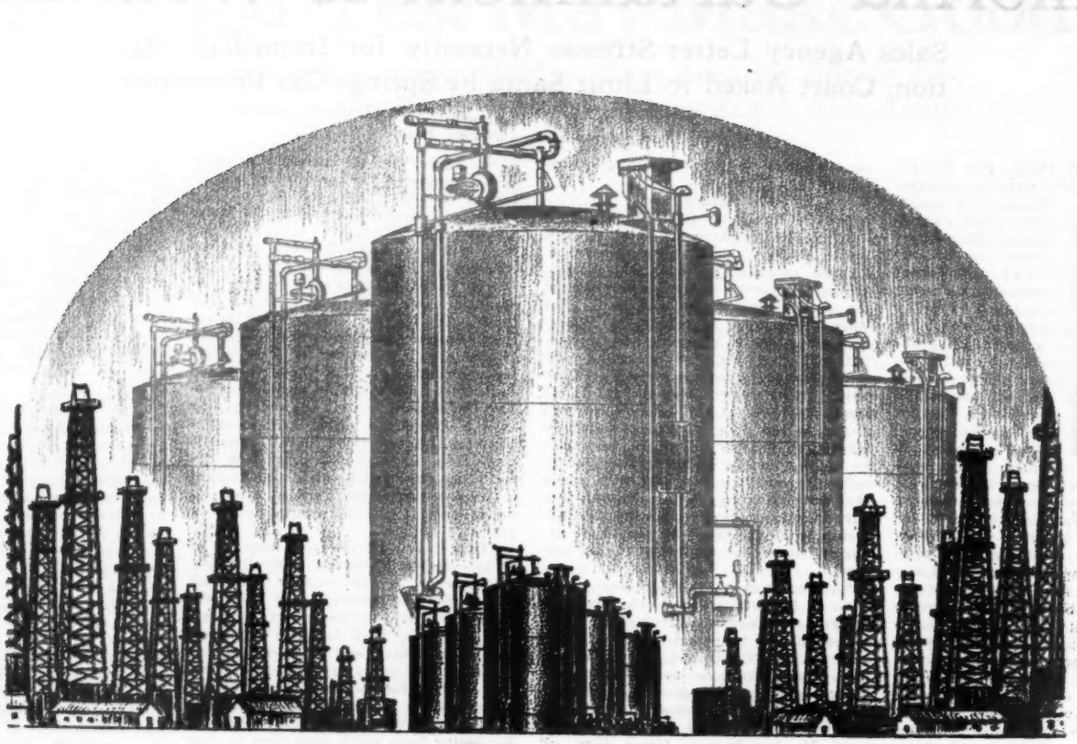
The director of natural resources, representing the people of California in this action, will also ask the Superior Court to prohibit operators from producing natural gas after the month of February, 1932, on any leasehold or other operating property during any month in excess of the average daily production allowed in the particular leasehold multiplied by the number of days in the month or in any day of 24 hours more than 25 per cent in excess of the average daily production allowed to the particular leasehold and from producing in the future more net formation gas each average day than is set forth in the allowable gas production schedule. In the State's petition for an injunction against Santa Fe Spring operators, net formation gas is defined as the amount of gas remaining after de-

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-Domestic—						
Diesel and gas oil	.....	.....	.....	.....	.....	208,460
Gasoline	262,038	37,434	105,701	15,100	367,739	1,143,619
Foreign Exports—						
Crude oil	59,993	8,570	160,561	22,937	454,191	567,713
Fuel oil	52,588	7,513	48,555	6,936	608,760	875,831
Diesel and gas oil	119,040	17,006	.....	.....	128,069	197,571
Gasoline	221,864	31,695	193,481	27,640	772,432	1,064,204
Kerosene	85,631	12,233	.....	.....	178,967	3,022
Naphtha distillate	41,175	5,882	.....	.....	41,175	.....
Coastwise-Domestic—						
Crude oil	412,870	58,981	285,634	40,805	986,444	1,172,266
Fuel oil	313,837	44,834	427,392	61,056	1,171,756	1,114,343
Diesel and gas oil	43,572	6,225	59,576	8,511	191,643	150,693
Gasoline	234,585	33,515	278,110	39,730	780,819	763,673
Kerosene	.....	.....	.....	.....	6,038	26,729

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Foreign Exports—						
Crude oil	57,325	8,189	95,650	13,664	57,325	.....
Fuel oil	.....	.....	.....	.....	380,408	.....
Diesel and gas oil	69,671	9,953	65,748	9,393	110,462	.....
Gasoline	.....	.....	87,645	12,521	.....	82,170
Kerosene	96,080	13,726	.....	.....	106,486	94,961
Coastwise-Domestic—						
Fuel oil	74,591	10,656	180,952	25,850	74,591	224,629
Diesel and gas oil	.....	.....	.....	.....	97,508	.....
Gasoline	.....	.....	.....	.....	319,165	128,939
Kerosene	.....	.....	.....	.....	.....	7,761



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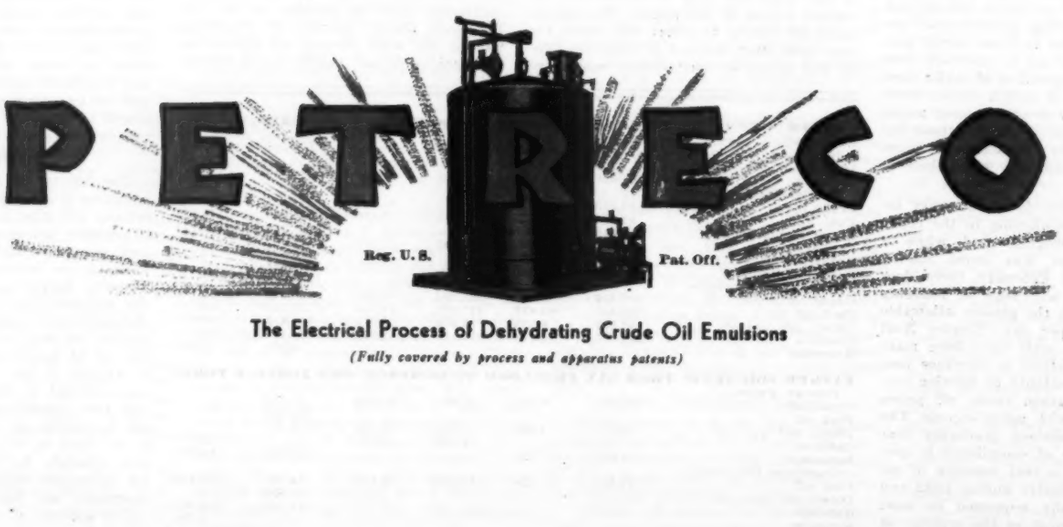

The Electrical Process of Dehydrating Crude Oil Emulsions
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ducting any dry gas used in recirculation in a well. The engineering report is based on a survey made by John Franklin Dodge, professor of petroleum engineering, University of Southern California; Rolla W. Walling, engineer of the State Division of Oil and Gas, and Harry P. Stolz.

The engineering report states that in some cases there are properties where the proportion of gas assigned is so small that it may be impossible to operate any of the wells continuously because the properties have already produced more than their fair share of the total oil and gas or because they are located on the outer edge of the structure and cannot be profitably operated. Included in this group are the Allison Syndicate, H. A. Bardeen, Barnhart & Morrow, Bellview Oil Syndicate, Cypress Petroleum, Elliott Consolidated, Italo Petroleum, A. L. Jamison, Mohawk Petroleum, Jamison Petroleum, Ring Oil Co., Rohde Oil Syndicate, Santa Fe Springs Oil Co., St. Helens Petroleum, Star Petroleum, Twin Bell Oil Syndicate Nos. 1 and 2, Superior Oil Co., Third Twin Bell Syndicate and the York-Smullin Oil Co. In petitioning the Superior Court to grant a modification of the preliminary injunction to prevent waste of natural gas in the Santa Fe Springs Field, the director of natural resources is basing its application for a temporary injunction on the correlative rights of operators in the common pool as laid down by the United States Supreme Court late in 1931. This has required considerable detail work and required the calculation of the cubical content of oil zones below every lease in the Santa Fe Springs Field.

Waste of Gas

During December an average of 38,000,000 feet of natural gas was blown to the air in California during each 24-hour period. Production of natural gas during the period in question approximated 953,000,000,000 feet, of which 609,000,000,000 feet were sold to public utilities and the remainder used for repressuring and storage purposes. Gas wastage in the Ventura Avenue Field averaged 13,700,000 feet per day. This field produced an average of 153,000,000 feet per day during December and sold to public utilities approximately 21,000,000 feet per day. The Dominguez Field of Los Angeles Basin utilized its entire output of natural gas during December by storing 158,524,000 feet in the upper zones and disposing of the balance either by sale to public utilities or in conjunction with gas lift operations. State officials conducted a hearing at Santa Barbara early last week in an effort to work out a plan for the handling of natural gas from the Elwood Field in such a manner as to eliminate its waste. A similar hearing was also started at Ventura to determine the method of handling production from the Ventura Avenue Field. This meeting is the second of a series, the first having been adjourned several weeks ago to give producers an opportunity to work out some plan for the reduction of the volume of gas produced by several wells.

Royalty Litigation

The Alamitos Land Co. was awarded judgment against the Shell Oil Co. for approximately $500,000 early last week by Superior Judge Thomas L. Ambrose. This judgment is the outcome of a suit instituted about a year ago for an accounting of all dehydrating charges since May 31, 1931. This decision is of extreme importance because it establishes a precedent and paves the way for the filing of additional similar suits. The Almitos Land Co., the plaintiff, contended that it leased 625 acres of oil land in the Long Beach Field to the Shell Oil Co. in 1921 on a one-sixth royalty basis. The plaintiff alleges that the defendant's method of computing gravity of oil taken from the lease was unfair in that the Shell had paid its royalties for years on the basis of the gravity of the oil before dehydration. The wet oil was naturally substantially lower in gravity than the same oil after dehydration and the Alamitos Land Co. was successful in recovering the difference in price prevailing between the wet oil and the clean oil less dehydration charges. The court, in upholding the plaintiff's charges, did not deem such action as fraudulent and in violation of the lease contract and consequently refused the plaintiff's plea for cancellation of the lease. The outcome of this action, despite the fact that the lease contract was not cancelled, is of paramount importance because several companies have been using this same method of determining the payment of royalties.

San Joaquin Valley

Although several wells were put on production in San Joaquin Valley fields during the past week none was of special importance. In the Elk Hills Field the Standard Oil Co. completed No. 46 Tupman pumping 481 bbls. of clean 18.5 gravity oil per day from 3,262 feet, the hole having been finished with a string of 8⅝-inch carrying 175 feet of perforated. This is the first well drilled in the Elk Hills Field by the Standard Oil Co. for several years. In the Round Mountain Field, the Chanslor-Canfield Midway Oil Co. successfully completed its well, No. 4, in Section 6-28-29 and brought it in pumping 410 bbls. of 15.6 gravity oil per day from 1,700 feet. This new well was bottomed at 1,700 feet and finished with a 9-inch liner carrying 52 feet of perforated.

In the Kettleman Hills Field the Standard recompleted No. 21-7 Q, flowing 2,772 bbls. of exceptionally clean 36.8 gravity oil and 3,472,000 feet of gas per day after replacing the 4¾-inch flow string with 3-inch tubing. The Superior Oil Co. has started rig construction for No. 4 Huffman, an offset well to the Kettleman North Dome Associa-

(Continued on Page 67)

SOUTHEASTERN MICHIGAN TO GET TEST IN LIVINGSTON COUNTY

By George A. Whitney

MOUNT PLEASANT, Mich., Feb. 8.—An important test of much interest to the operators in southeastern Michigan is being started by Charles D. VanWinkle and Browning Browne, both of Howell, in Livingston County. The new test, contract for which has been let to the Davis Oil Co. of New Lexington, Ohio, will be drilled on the Albert L. Smith farm, just outside the city limits of Howell. The capital is furnished by Howell and Detroit parties and is made possible through the co-operation of the Pure Oil Co. and the White Star Refining Co. The test will be drilled into the Dundee formation and will be watched with much interest by the major oil companies operating in the State. The material has been moved on the location, and drilling will start at once.

The Pure Oil Co.'s No. 1 Frank Howland farm, SW SW SW Section 23, Porter Township, Midland County, an offset north of the well recently completed on the Otway farm, estimated at 75 bbls., in the Dundee formation, failed to make a commercial showing at 51 feet in the Dundee, at a total depth of 3,434 feet. Drilling of this key well, important in its bearing on future developments far to the east and south of the proven field, was still in progress, however.

Several wells are nearing the pay depth in the Mount Pleasant-Midland Field. Among them are the Pure Oil Co.'s No. 1 in the SE NW NE, Section 18, Greendale Township, Midland County, 990 feet from the north and west lines of the farm; also Wells & Miller's test on the H. C. and Martha Thom farm, S half SE Section 9, Lee Township, also in Midland County.

The test of the Nottawa-Deerfield Oil & Gas Co. in the southwest corner of the Smith farm, SE NE Section 35, Nottawa Township, between the gas wells in Broomfield Township, and the gas wells in the Vernon Field, drilled into salt water at 1,411 feet, when the hole filled up 1,000 feet with brine. If the well cannot be useful to the Dow Chemical Co., it may in the future case off the water and drill the test to the Dundee oil formation.

Drilling permits issued by the Department of Conservation in Michigan were: Pure Oil Co.'s No. 1 Emma Reed, N half SE Section 10, Greendale Township, Midland County, 990 feet from the north line

(Continued on Page 67)

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Barnsdall, No. 1 Los Alamos, Santa Barbara Co.	31- 8-33	1,009	sd. sh. drilling
Western Gulf, No. 1 Santa Maria, Santa Barbara Co.	5- 9-33	8,565	sidetracking
Midwest Oil Co., No. 1 Los Alamos, Santa Barbara Co.	2- 7-35	3,450	cleaning out
General Pet., No. 3 Goleta, Santa Barbara Co.	21- 4-28	6,912	plug 4,386 ft.
General Pet., No. 4 Goleta, Santa Barbara Co.	3- 4-29	913	sd. sh. drilling
General Pet., No. 133 Goleta, Santa Barbara Co.	21- 4-28	2,030	suspended
General Pet., No. 134 Goleta, Santa Barbara Co.	21- 4-28	2,053	suspended
General Pet., No. 136 Goleta, Santa Barbara Co.	21- 4-28	2,047	suspended
General Pet., No. 137 Goleta, Santa Barbara Co.	21- 4-28	2,050	suspended
Bowles Oil Co., No. 140 Goleta, Santa Barbara Co.	21- 4-28	2,065	suspended
U. S. Pet., No. 141 Goleta, Santa Barbara Co.	20- 4-28	2,004	suspended
U. S. Pet., No. 142 Goleta, Santa Barbara Co.	20- 4-28	2,012	suspended
U. S. Pet. No. 143 Goleta, Santa Barbara Co.	20- 4-28	2,010	suspended
El Camino, No. 149 Goleta Tideland, Santa Barbara Co.	22- 4-28	2,010	suspended
Bellview Oil Co., No. 159 Goleta, Santa Barbara Co.	24- 4-29	2,099	suspended
Johnson & Strickland, No. 1-A Goleta, Santa Barbara Co.	19- 4-27	4,886	suspended
The Texas Co., No. 2 Carpinteria, Santa Barbara Co.	34- 4-24	718	core hole
Sovereign Oil Co., No. 1 Guadalupe, Santa Barbara Co.	20-10-35	5,500	suspended
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	2,345	suspended
Pacific Finance Co., No. 1 Carpinteria, Santa Barbara Co.	Tideland	2,011	suspended
Associated, No. 1 Rincon Creek, Ventura Co.	19- 4-24	2,080	suspended
Bell, H. H., No. 1 South Mountain, Ventura Co.	22- 3-21	2,174	rd. sd. drilling
Pure Oil Co., No. 1 S. F. Canyon, Ventura Co.	15- 4-21	2,591	suspended
Union, No. 1 Calumet, Ventura Co.	3- 3-19	....	location
Woodruff Oil Co., No. 1 Miguelito, Ventura Co.	4- 3-24	....	location
Graham & Loftus, No. 1 Goose Lake, Kern Co.	20-27-22	5,850	sd. sh. drilling
General Pet., No. 1 Buttonwillow, Kern Co.	6-28-23	2,615	cleaning out
Wilshire Oil Co., No. 1-A Buttonwillow, Kern Co.	7-29-24	7,000	suspended
Millham Expl. Co., No. 1 Buttonwillow, Kern Co.	8-28-23	4,495	suspended
Purman, T. H., No. 1 McKittrick, Kern Co.	22-30-21	2,845	sd. sh. drilling
Federal Drlg. Co., No. 1 Buena Vista, Kern Co.	20-31-24	5,380	suspended
General Pet., No. 1 Belridge, Kern Co.	30-28-21	8,000	hr. sh. drilling
Wallace, K. C., No. 1 Belridge, Kern Co.	32-29-21	4,222	suspended
Rio Cal Pet., No. 1 Shale, Kern Co.	2-27-18	2,355	suspended
Wicker, Sy., No. 1 Arvin, Kern Co.	12-30-28	3,850	suspended
Shell, No. 1 Weed Patch, Kern Co.	29-30-29	5,910	suspended
Osborn, Colter, No. 1 Weed Patch, Kern Co.	15-30-29	3,465	suspended
Osborn, Colter, No. 2 Weed Patch, Kern Co.	15-30-29	2,005	testing
Fullerton Oil Co., No. 2 Semitropic, Kern Co.	25-27-23	2,764	abandoned
Fullerton Oil Co., No. 3 Semitropic, Kern Co.	25-27-23	714	core hole
Standard, No. 1 Devil's Den, Kern Co.	14-25-18	1,600	suspended
Cumberland Oil Co., No. 2 Devil's Den, Kern Co.	17-26-18	3,225	fishing
Signal Oil Co., No. 1 Blackwell Corner, Kern Co.	15-26-19	106	suspended
United Kern Pet., No. 1 Mojave, Kern Co.	26-10-14	1,065	suspended
Meridian Oil Co., No. 1 Mojave, Kern Co.	11- 9-15	4,000	suspended
Kendall Dev. Co., No. 1 Mojave, Kern Co.	27-11- 9	1,079	hd. sd. drilling
Harding, J. B., No. 1 Mojave, Kern Co.	5-10-10	1,030	redrilling
Barnsdall Oil Co., No. 1 Tejon, Kern Co.	16-11-20	2,950	sd. sh. drilling
Ritchie, J. J., No. 1 Tejon, Kern Co.	33-11-19	6,035	suspended
Descanso Oil Co., No. 1 Tejon, Kern Co.	31-11-19	980	sd. drilling
Associated, No. 1 Jacalitos, Fresno Co.	22-21-15	6,197	suspended
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,390	suspended
Kent & McDonald, No. 1 Carrizo, San Luis Obispo Co.	3-32-22	2,630	suspended
Trav-El Oil Co., No. 1 Carrizo, San Luis Obispo Co.	7-32-22	2,450	cleaning out
Indian Dome Oil Co., No. 1 Edna, San Luis Obispo Co.	26-31-12	3,380	cleaning out
Martin, J. D., No. 1 Edna, San Luis Obispo Co.	5-31-13	2,990	redrilling
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,160	hd. sd. drilling
Emerich Oil Co., No. 1 Atascadero, San Luis Obispo Co.	13-28-12	1,730	fishing
Schilling, C., No. 1 Atascadero, San Luis Obispo Co.	1-29-12	1,650	suspended
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,280	suspended
Brown, W. F., No. 1 Parkfield, Monterey Co.	15-23-14	1,051	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	redrilling
Niel, W. B., No. 1 Dudley Ridge, Kings Co.	32-22-20	rig	rigged up
Guess, E. B., No. 1 Dudley Ridge, Kings Co.	12-22-22	1,996	suspended
Irma Investment Co., No. 1 Dudley Ridge, Kings Co.	7-23-20	1,345	gas well, idle
Irma Investment Co., No. 2 Dudley Ridge, Kings Co.	7-23-20	1,224	cleaning out
Eagle Oil Co., No. 1 Dudley Ridge, Kings Co.	15-23-20	491	cleaning out
Kettleman Oil & Gas Co., No. 1-A Dudley Ridge, Kings Co.	20-23-20	1,194	gas well, idle
Valley Expl. Co., No. 1 Dudley Ridge, Kings Co.	12-23-19	1,302	cemented
Valley Expl. Co., No. 2 Dudley Ridge, Kings Co.	12-23-19	1,200	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	5,894	suspended
Seymour, L. W., No. 1 Avenal, Kings Co.	10-23-16	1,148	suspended
Tulare Basin Gas Co., well No. 1, Kings Co.	2-23-19	1,040	bl. sh. drilling
Tulare Oil Co., No. 1 Corcoran, Tulare Co.	20-22-22	rig	suspended
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	suspended
Gravity Expl. Co., No. 1 Alpaugh, Tulare Co.	11-24-23	rig	suspended
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	20-24-23	1,920	plug 1,487 ft.
Twin State Oil Co., No. 1 Point Arena, Mendocino Co.	14-12-17	7,694	suspended
Orinda Pet., well No. 1, Contra Costa Co.	32- 1- 3	2,120	suspended
Colusa Oil Co., No. 1 Bush, Colusa Co.	21-15- 4	1,040	suspended
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	3- 2-10	4,750	cleaning out
Hilderbrandt, R., No. 1 Crow's Landing, Stanislaus Co.	36- 6- 7	1,130	suspended
Orland Oil Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,040	suspended
Union Oil Co., No. 1 Tracy, San Joaquin Co.	14- 3- 6	4,275	bl. sh. drilling

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Hines Pet., No. 1 Ocean Park, Los Angeles Co.	9- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Westwood Oil Co., No. 2 Hermosa, Los Angeles Co.	6- 4-14	2,151	suspended
Staple Oil Co., No. 1 Manhattan, Los Angeles Co.	24- 3-15	2,700	suspended
Lawndale Pioneers, Inc., No. 1 Peck, Los Angeles Co.	20- 3-14	5,928	cleaning out
Mohawk Pet., No. 1 El Nido, Los Angeles Co.	29- 3-14	5,099	sd. sh. drilling
Ranger Pet. Co., No. 1 Watson, Los Angeles Co.	28- 4-13	3,785	testing
Avalon Park Dev. Co., No. 1 Watson, Los Angeles Co.	17- 3-13	rig	suspended
Pedro Pet. Corp., No. 1 San Pedro, Los Angeles Co.	14- 5-14	rig	suspended
Brubaker, W. O., No. 1 Van Nuys, Los Angeles Co.	11- 2-15	2,700	suspended
Rucker & Croul, No. 2 Puente, Los Angeles Co.	27- 2-10	2,200	suspended
El Dorado Oil Co., No. 1 Puente, Los Angeles Co.	30- 2- 9	2,250	suspended
Cudahy Oil Co., No. 1 Bell, Los Angeles Co.	30- 2-12	1,370	suspended
Jones, W. L., No. 1 Bell, Los Angeles Co.	31- 2-12	577	sd. drilling
Weist Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	4,902	suspended
Blinn & Gray, No. 1 Montebello, Los Angeles Co.	6- 2-11	5,060	recemented
Wardell & Monichini, No. 1 Montebello, Los Angeles Co.	7- 2-11	rig	rigged up
Yellowstone Oil Co., No. 1 Alhambra, Los Angeles Co.	24- 1-13	3,919	suspended
Yellowstone Oil Co., No. 2 Alhambra, Los Angeles Co.	19- 1-12	2,015	suspended
Davidson Oil Co., No. 1 Monterey Park, Los Angeles Co.	32- 1-12	....	location
Rucker, L. W., No. 1 Calabasas, Los Angeles Co.	26- 1-17	1,004	cleaning out
Caballero Estates, No. 1 Calabasas, Los Angeles Co.	23- 1-16	1,460	suspended
Marble, Willard, No. 1 Chatsworth, Los Angeles Co.	6- 2-16	1,395	suspended
Ajax Pet., No. 1 Newport, Orange Co.	21- 6-10	6,850	gr. sd. drilling
Beck, Alfred, No. 1 Corona, Riverside Co.	8- 4- 8	1,110	suspended
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,533	sd. sh. drilling
Duncan, N. L., No. 1 Sagebrush, Riverside Co.	8- 4- 6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25- 1- 2	2,392	suspended
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	635	sd. sh. drilling
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	670	sd. sh. drilling
Borderland Oil Co., No. 1 Encinitas, San Diego Co.	12-13- 4	2,519	suspended
Borderland Oil Co., No. 2 Encinitas, San Diego Co.	12-13- 4	1,890	sd. sh. drilling
South Bay Oil Co., No. 1 Border, San Diego Co.	31-18- 8	1,243	suspended
Itasca Pet. Co., No. 1 Mesa, San Diego Co.	33-18- 1	1,700	cemented
Carr, O. K., No. 1 Capistrano, San Diego Co.	13- 6- 8	5,250	suspended
Oklahoma Oil Corp., No. 1 Palms, San Diego Co.	25-11- 8	1,128	sd. sh. drilling

Weather Delays Work in Central West

Nine Completions in Central Ohio, None in Lima, and None in Illinois. Laporte County, Indiana, Test Has Oil Showing

By George A. Whitney
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Feb. 8.—The old Lima Field of northwestern Ohio failed to report any completions for the week, although there are about 15 wells in the field that are under way that will probably be finished before the close of February. There are four drills working in the Tiffin Field in Seneca County, two in Lucas County, one in Ottawa County, two in Shelby County, one each in Logan and Putnam Counties, and in Wyandot County there are six drilling and two rigs up, ready to start work at any time. In the latter county, McPheron, Miller and Cook, are due in with their No. 4 on the Bowman-Brillhart farm, Section 21, Tymochtee Township. In Crawford Township, Murphy and others are drilling on the C. S. Gruble, Section 1, and O'Neal and others are drilling No. 1 Homer Wonder farm, Section 1, same township, while Harpster and others have a rig standing on the L. C. Beis farm, Section 11, same township. Upper Sandusky Gas Co. has about due for completion a test on the Saltzman, Section 28, Crane Township, same county, and R. W. Kurtz and others are drilling No. 1 Ettie Smith, Section 11, Ridge Township, same county, also working at No. 2 Elmer E. Moser, Section 12, same township.

CENTRAL OHIO

In the Central Ohio Field, owing to the weather, there were but nine completions, four of which were dry holes and five were gas wells. In rigs up and drilling wells there is also a heavy drop from the past week, as only seven locations were made and two wells started drilling, a total of nine for the new work started.

In Lorain County the Ohio Fuel Gas Co.'s No. 3-5,603 A. D. Crocker farm, Lot 71, Columbia Township, is a nice gas well in the Clinton lime formation, while Daugherty & Dempsey's test on the Phil L. Smith farm, Section 15, Avon Township, same county, failed to find any sand at from 2,307-32 feet and goes as a dry hole. Harmon & George have a rig in for No. 6 David Horn farm, Section 4, Lake Township, Ashland County.

In Richland County, Plymouth Township, Daly and others' test on the A. J. Petit farm, Section 7, was dry in the Clinton lime, then drilled into the Trenton limestone to a total depth of 3,192 feet, and is a duster. Commonwealth Gas Corp. has a well starting in No. 1 Angeline Cates, Section 11, Jefferson Township, same county.

In Licking County, Fallsburg Township, the Emerald Petroleum Co. has a rig up on the Thomas Moren farm, Section 13. Wehrle Gas Co. is drilling No. 4 Fred W. Hobart heirs, Sections 5 and 6, Granville Township.

In Athens County, Smithenberger's test on the Peter J. Glass, Section 28, Alexander Township, which showed only 500 feet of gas from the Maxon sand from 530 to 564 feet, has been abandoned. Fred Gunthal and others have only a light gas showing in the Keener sand at 1,225 feet, the gas being found at 960 feet, and are undecided whether to drill deeper or pull the pipe.

Stark County

In the really active area of Central Ohio, centered in Jackson Township, Stark County, four new wells were brought in for the week. Ohio Fuel Gas Co. has a nice gas producer in No. 3-5,593 on Bruce Crissinger farm, Section 16. East Ohio Gas Co. also has a very good gas well in No. 1 Besse J. Slagel farm, Section 5, same township, in the Clinton lime from 4,356-86 feet. F. A. Brendall and others brought in two good gas wells in No. 1 J. J. Kurtzman farm, Section 16, in the Clinton lime from 4,225-61 feet, and No. 6 on the Lake Cable Co.'s land, Section 23, also in the Clinton, from 4,353-85 feet. East Ohio Gas Co. is drilling No. 1 Brainard K. Pry farm, Section 15, same Township, and made a location for No. 1 J. and C. Albright, Section 8, and No. 2 George H. Charles farm, Section 24. Wiser Oil Co. has a rig in for No. 2 on the Lake-O-Springs, Section 14, same township. F. A. Brendall and others are spudding No. 7 Lake Cable Co. land, Section 23, same township.

In Guernsey County, Jackson Township, W. C. Urban and others have a rig in for No. 3 on the Guernsey Valley Fair Grounds, in Lot 22.

In Belmont County the Central Gas Co. reports a dry hole on the Grover Parks farm, Sections 14-15, Somerset Township, as no pay was found in the Berea sand from 1,978-88 feet.

INDIANA

The wildcat being drilled by H. J. Hauck and others on John Siddles farm, SW Section 4, Lincoln Township, Laporte County, about 15 miles southwest of South Bend and several miles south of New Carlisle, which found a shallow gas at 365 feet, but not in commercial quantities and continued on down, topping the Trenton lime formation at 1,400 feet, struck an oil showing at 1,450 feet and continued operations. The well has since made a little better showing, being 180 feet in the Trenton and still drilling in hope of finding a deeper pay. If not it will be shot where the oil showing was found. This well is on the bank of Mill Creek close to the highway and in a northeast branch of what is known as the Kankakee Valley. Many people have visited the well and the showing of oil caused more or less excitement, but whether it will develop into a commercial producer remains to be seen. As the well is already down 180 feet in the Trenton it is doubtful if another showing worth while will be found, although oil has been produced in quantities as deep as 400 feet in the Trenton in numerous spots in the old Lima Field of northwestern Ohio. The Kankakee Valley is where the shallow natural lubricant has been produced for many years. The shallow oil was found in the regular valley, near the Illinois-Indiana state line, near Francisville and Medarysville, but the Mill Creek test found no showing of the heavy crude.

The wildcat of the W-B Oil Co., on the W. McKennen farm, Section 10, Hendricks Township, Shelby County, drilled through the Trenton and is said to be dry in the St. Peter sandstone formation.

In Huntington County, Jefferson Township, the Bert Dennison's No. 1 Charles Wiley, Section 13, reported a light gas showing.

No completions were reported from the Illinois fields.

KENTUCKY

The Logsdon Valley Pool, southwest of Munfordville, in Hart County, resembles the Legrande Pool and is developing some good oil wells at shallow depths. Hupp and Duff, oil operators, secured a lease on the two Jaggers farms owned by Grover Jaggers, along with the W. T. Spencer farm, upon which there are about 20 completions, with no failures, something out of the ordinary for Kentucky. On the larger Jaggers farm there are 12 producers, five on the other Jaggers farm and three on the W. T. Spencer farm. No. 5 on the Jaggers No. 1 farm is reported for 75 bbls.; Nos. 6, 7, 8, 9, 10, 11 and 12 are reported better than 100 bbls. each, while on the Jaggers No. 2 farm No. 4 is reported at 60 bbls., and No. 5 at 75 bbls. This firm's No. 3 W. T. Spencer farm, same area, is reported at 80 bbls. Unknown parties report a 50-bbl. well drilled on the Seymour School lot, same field, while the H. C. Smith Co. struck salt water on the Mrs. L. C. Johnson farm, in the Munfordville Field.

Hupp and Duff are drilling No. 13 on the large Jaggers farm. Norris Brothers have moved a spudder on a lease in Lawler Bend, also in Hart County. Reports are that the northwestern part of Hart County, near the towns of Priceville and Bonnieville, close to Hardin, Larue and Grayson Counties, will get a drilling play during the early spring season.

Oliver Jenkins and others' No. 3 on the Nation Brothers 45 acres, in the western part of Ohio County, has been completed as a 5-bbl. pumper at a depth of 1,540 feet.

Miller, Damron and others' No. 4 on the Joe Yeiser farm, in the Barrett Hill Pool, in McLean County, shows 5 bbls. in the Jet sand and may be drilled deeper. The Ohio Oil Co. is down around 1,200 feet in No. 1 on the W. E. Lynn farm, same county.

Ellis & Ashby drilled in a 75-bbl. initial producer in No. 5 on the Myrtle Howard farm, in the Jones Pool, of Daviess County, at a total depth of 619 feet.

Eastern Production Again Restricted

Twenty-five Per Cent Curtailment Now in Effect in Lower Fields. Coshocton County, Ohio, Gets 50-Bbl. Producer

By Staff Correspondent

PITTSBURGH, Pa., Feb. 8.—The South Penn Oil Co., through its crude oil buying office, the Joseph Seep Purchasing Agency, the purchaser of the majority of Penna Grade crude in Southeast Ohio, Southwest Pennsylvania, and West Virginia, has again increased the restriction on allowable production. During the month of January, the producers, with whom the South Penn Oil Co. had contracts to purchase all crude as run, were asked to limit their production to 90 per cent of their November, 1931, figures. Failure to comply would necessitate the cancelling of the contract. On January 28 notices were mailed to all producers in Southeast Ohio running oil in the Buckeye Pipe Line Co., in Southwest Pennsylvania, running oil in the Southwest Pennsylvania Pipe Lines, and in West Virginia, running oil in the Eureka Pipe Line Co., with whom contracts existed, that owing to a further curtailment on the part of refiners of Pennsylvania Grade oil, the South Penn Oil Co. was compelled to ask a further curtailment of production so that it might be obligated to receive but 75 per cent of the customary amount, viz November, 1931, production.

In making this request, the notice further stated: "We want to express our appreciation of the very complete cooperation we have received from all our patrons during the month of January, and to express the hope that the maintenance of a balance between production and consumption will rapidly bring about a more satisfactory condition.

"It is a little early to predict what the March conditions will be, but from the present statistics of our industry it would appear that there should be a slight improvement by that time." It was further stated that compliance with this request would permit the company to continue its present relations with the producer. As other outlets are very limited, it may be considered that 25 per cent curtailment is now in effect in the three divisions of the lower eastern fields.

New Production

Few wells were completed in the lower eastern fields during the week, and many wells listed as drilling have shut down until the market improves or better outlets are provided. This applies to wells drilling in gas areas as well as oil, as both are surplus at the present time. A total of eight wells, six gassers and two oil producers with an initial production of 51 bbls., was completed in the past week. There was also a report of one dry hole.

SOUTHEAST OHIO

In Southeast Ohio, the best well was the test of the Preston Oil Co. on the A. J. and B. W. Beatty farm in the southwest corner of New Castle Township, Coshocton County. It was completed in the Clinton sand and produced 50 bbls. natural the first day. It is reported that the well will not be shot until the market improves, but even natural, it is a very fair well.

On Eight-Mile Creek, Section 24, Newport Township, Washington County, the Keader Estate completed a test on the Daniel Mendenhall farm in the Salt sand at a depth of 1,205 feet. After shot, it made about 1 bbl. the first day and will settle down to a very small pumper. In the northeast quarter of Section 20, Island Creek Township, Jefferson County, Sanders Brothers completed a wildcat on the Virginia Crawford farm. It found the Berea sand dry at a depth of 1,300 feet.

Drilling in Ohio

On Lot 125, Fearing Township, Washington County, T. N. Curtis is drilling on the Robert Biehl farm. In Marion Township, Morgan County, W. S. Harris is drilling No. 3 on the F. A. Gifford farm, Section 13. In Medina County, E. R. Edson & Son Co., the Oko Oil & Gas Co. and the Preston Oil Co. are continuing to complete additional wells in the production shallow sands in Chatham Township. The two last completions in Harrisville Township were fair and this extends the shallow pool.

In Muskingum County, work continues with the Ohio Fuel Gas Co. nearing completion in its test on the Gibson heirs farm in Section 23, Brush Creek Township, and the Wittmer Oil & Gas Co. ap-

(Continued on Page 67)

Speed

To the men who by their courage and perseverance developed the airplane, the world owes an undying debt of gratitude. For the power-laden fluid that made their achievement possible, we should be equally grateful. Without petroleum even the genius of the Wright Brothers would have been in vain!

Petroleum is the precious fluid of industry, and it is the happy privilege of the Halliburton organization to have contributed, in no small measure, to its conservation in America. Halliburton Cementing Service, attuned at all times to the same exacting standards, saves millions of barrels of oil every year. It may justly be termed, therefore, a major contribution to the wealth and resources of the nation. Halliburton Oil Well Cementing Co., Duncan, Okla.

HALLIBURTON

Safeguards Petroleum

» THE PRECIOUS FLUID OF INDUSTRY «

Natural Gas Industry Developments

NATURAL GAS INDUSTRY CONVENTION PROGRAM

Preliminary arrangements for the annual meeting of the natural gas department, American Gas Association, are well advanced, and the several committees in charge are hard at work to make this gathering at Tulsa, May 9, 10 and 11 a conspicuous success. The Mayo Hotel has been chosen as headquarters and all sessions will take place there.

In laying out the program, the committee in charge agreed that only such subjects as are of vital importance to the natural gas industry will be admitted as topics for discussion. Special effort is being made to procure speakers who are well-known and regarded as particularly gifted to present the subjects of interest to the natural gas man.

H. H. Rogers has accepted an invitation to speak on "Oil, Gas and the Banks in Relation to Public Welfare."

H. O. Caster, of Henry L. Doherty & Co., New York, and J. A. Owens, president of the National Electric Light Association and president of the Oklahoma Gas & Electric Corp., will summarize legislative enactments of 1931 which have affected the production, transportation and distribution of gas. Both pending and contemplated legislation will be discussed.

Well-known men have been invited to speak on the important subject of air conditioning.

LeRoy M. Edwards, of Los Angeles, A. E. Bettis, vice president, Missouri Utilities, and Col. Oscar H. Fogg, vice president, Consolidated Gas Co., of New York, will offer papers on dealer co-operation from the standpoint of justification of utility selling and rendering service.

Conservation of natural gas is a subject which has grown in importance, and will be discussed by some of the leading executives. Larger diameter transmission lines, pipe line bridges versus multiple lines for river crossings, telephone and dispatching systems also will come in for a large share of attention.

Other topics on the program will treat customer relations, advertising, municipal ownership and a general review of what affiliated associations have done to help combat antimerchandising legislation.

Committees in charge of the convention are as follows:

Program committee: H. C. Morris, chairman, Dallas Gas Co.; F. H. Brooks, Northern Gas & Pipe Line Co., Omaha, Neb.; F. C. Brown, Continental Construction Co., Chicago; R. H. Hargrove, United Gas Public Service Co., Houston, Tex.; R. C. Hoffman, Jr., Central Public Service Co., Chicago; William Moeller, Jr., Southern California Gas Co., Los Angeles; H. L. Montgomery, Cities Service Co., Bartlesville, Okla.; E. L. Munyan, Union Gas & Electric Co., Cincinnati, Ohio; E. F. Schmidt, Lone Star Gas Co., Dallas, Tex.; George Wehrle, Public Service Co. of Colorado, Denver, Colo., and T. R. Weymouth, Columbia Gas & Electric Corp., New York.

General arrangements committee: E. A. Olsen, chairman, Oklahoma Natural Gas Corp., Tulsa; J. B. Corrin, Hope Natural Gas Co., Pittsburgh, Pa.; T. H. Kerr, Ohio Fuel Corp., Columbus, Ohio; F. W. Kirk, Houston Pipe Line Co., Houston, Tex.; J. R. Munce, Arkansas Natural Gas Corp., Shreveport, La.; W. J. O'Brien, Memphis Power & Light Co., Memphis, Tenn.; F. F. Schauer, Equitable Gas Co., Pittsburgh, Pa.; J. H. White, Southern Natural Gas Corp., Birmingham, Ala.; W. S. Yard, Pacific Gas & Electric Corp., San Francisco, and P. E. Eddy, Peoples Gas Light & Coke Co., Chicago.

Publicity committee: B. F. Pickard, Oklahoma Natural Gas Corp., Tulsa; R. J. Daugherty, Empire Companies, Bartlesville, Okla.; John Fletcher, Arkansas Natural Gas Corp., Shreveport, La.; Winfield Foster, Peoples Gas Light & Coke Co., Chicago; W. C. Grant, Lone Star Gas Co., Dallas, Tex.; C. D. Greason, Gas Service Co., Kansas City, Mo.; Charles Jordan, Pacific Gas & Electric Corp., San Francisco; Ray Ratliff, Kansas City Gas Co., Kansas City, Mo.; W. D. Thurber, Southern Counties Gas Co., Los Angeles; Reid S. McBeth, Oklahoma Natural Gas Corp., and W. M. Hines, Oklahoma Natural Gas Corp., Tulsa.

PRESIDENT GALLAGHER TALKS IN NEW ENGLAND

By R. W. Gallagher
President American Gas Association*

Over the entire gas industry of this country and Canada there are very pressing problems of a general nature which affect us all alike. The first of these, or at least it is the one most talked of today, is that of continued and increased presentation to the public of the gas idea. A phase of this, and perhaps the whole of it, except in its mechanical execution, is the policy of a gas company to interpret the gas idea in every home, helpfully, practically and economically in ways that will best bring out the wonderful advance made by engineers in the science of heating.

Gas values must be interpreted to individuals, whether a company, industry, or family, in terms that it can understand. The same is true of all conditions and problems affecting the gas industry itself, which are of such a nature that the public must know about them for its good and our own. These, too, must be told in particularized and often localized terms of community understanding.

The proper handling of the gas industry's problems in different sections of the country requires sectional organizations working in harmony with company organizations, and varying conditions which have to be met in the different sections make co-ordination under one central association all the more necessary if the industry is to meet the competitive condition, which we all face, with a united front. It just naturally follows that if the problems of different companies and local organizations vary in different parts of the country, there must be co-ordination of the efforts to properly solve the problems if the industry is to progress.

If organization of the parts is necessary, as we have seen it to be, the organization of the parts into an effective and impelling whole stands out as part of the picture of stability and progress which the American gas industry today presents.

There are those who believe that there are today more difficulties in the way of our industry's advancement than at any time in a number of years. Some of this feeling is perhaps due to the mental attitude so general in these days; some of it is doubtless true. We are beset by competition in many forms and very many directions, until anyone who in these times refers to the gas industry as a monopoly can provoke only a smile. We can meet competition by maintenance of service, by intelligent engineering, by thorough training and equipment of our representatives, by improvements in appliances, by adequate education of our public, and by continuing to appreciate that opportunity and adherence to the ideals of public service and social responsibility.

These situations call for the qualities which we possess and which I have attempted to relate—constancy of purpose, stability, adaptability, education, research—and organization.

*Excerpt from address before New England Gas Association.

SHORT METER COURSE DATES ARE ANNOUNCED

The eighth annual Southwestern Gas Measurement Short Course will be held at the College of Engineering, University of Oklahoma, Norman, April 26 to 28. These dates were announced by W. H. Carson, professor of mechanical engineering at the university and director of the gas measurement course. This course is sponsored by the College of Engineering, of which J. H. Felgar is dean, assisted by the Oklahoma Utilities Association and the Corporation Commission of Oklahoma.

At a meeting of the general committee in charge of this project, of which B. L. Maulsby of the Oklahoma Natural Gas Corp. is chairman, preliminary details of the project were worked out. W. R. McLaughlin of the Arkansas Natural Gas Corp., Shreveport, La., is chairman of the program committee; R. D. Turner of the Skelly Oil Co., Tulsa, chairman of the practical methods committee; G. P. Estill of the Oklahoma Natural Gas Corp., Tulsa, chairman of the committee on publication of papers, and D. C. Williams of Kay County Gas Co., Ponca City, chairman of committee on exhibits.

Exhibits are restricted to equipment in use in the Mid-Continent Field, having direct relation to gas measurement. Manufacturers wishing to reserve exhibit space may apply to Mr. Williams any time before March 1.

Registration for the course in 1931 numbered about 400, representing 20 states. The program for the course this year, which will be announced in the near future, is expected to be as comprehensive as any heretofore offered.

GOLD AFFECTS GAS PRICE

WASHINGTON, D. C., Feb. 8.—The decline in the pound sterling has affected the price of gas in the South American republic of Uruguay.

"Several months ago," states Commercial Attache W. A. Hodgman, reporting from Montevideo, "the Montevideo Gas Co., which is British owned, raised gas prices to consumers approximately 25 per cent. Beginning January 1, 1932, the company announced rates would go back to the former standard. The company stated that this reduction was an experiment and would be subject to the pound sterling retaining its present value."

ALBERTA FIRMS UNAFFECTED

CHATHAM, Ontario, Feb. 6.—Announcement is made by C. J. Yorath, president of Canadian Western Natural Gas, Light, Heat & Power Co. of Calgary and of Northwestern Utilities, Ltd., of Edmonton, that bonds and preferred stocks of these companies are unaffected by the receivership of the American Commonwealth Power Corp. of New York. Dominion Gas & Electric Co. controls the two Alberta utility companies through common stock ownership, and American Commonwealth Power Corp. in turn has an interest in the Dominion Gas & Electric Co.

FUEL GAS FROM BEER WASTE

Hot brewery wastes may be fermented to produce fuel gas at the rate of 3,600,000 feet to 1,500,000 gallons of waste at a very low cost, according to C. S. Boruff and A. M. Buswell of the University of Illinois faculty.

ONTARIO RATE CUT ASKED

CHATHAM, Ontario, Feb. 6.—The town council of Simcoe, Ontario, is applying to the Dominion Natural Gas Co. for a lower gas rate.

WINDSOR GAS DECISION GRANTS INCREASED RATE

CHATHAM, Ontario, Feb. 6.—A decision with an important bearing on rate fixing in Ontario has just been handed down by the Appellate Court of Ontario in connection with an appeal of the city of Windsor from the decision of G. F. Henderson, natural gas referee, increasing certain rates paid by customers of the Windsor Gas Co.

The rate decision last year followed an application from the eight municipalities of the Border Cities area for lower rates and a counter application of the Windsor Gas Co. for an increase. All the municipalities except Windsor and Walkerville ultimately reached agreements with the company involving increased rates; while in the case of these two municipalities the referee fixed a sliding scale ranging from $4 net per 1,000 feet for the first 200 feet to 55 cents per 1,000 feet net for all consumption over 20,000 feet.

The appeal not merely challenged the increased rate but disputed the jurisdiction of the referee; and in its finding the Appellate Court sustained the rates fixed and found that the referee had acted within his authority.

OKLAHOMA RATE HEARINGS

Hearings on applications of 19 Oklahoma cities asking gas rate reductions from the Consolidated Gas Service Co. will open before the State Corporation Commission February 29, Ed Hicks, Jr., commission secretary, announced. The applications ask an equitable readjustment.

The gate rate charged by the Consolidated is 25 cents for 1,000 feet. In 14 cities the consumers' rate begins at 12 cents per 100 feet for the first 500 feet, tapering down to 2 cents per 100 feet for all over 82,000 feet. In Tonkawa and Garber the rate is 50 cents per 1,000 feet for the first 50,000 feet.

Communities affected are Garber, Watonga, Custer City, Thomas, Butler, Canton, Fairview, Hitchcock, Okeene, Eagle City, Weatherford, Drummond, Fay, Fletcher, Tonkawa, Mangum, Granite, Mayfield and Hammon.

CHILDRESS GAS HEARING

FORT WORTH, Tex., Feb. 8.—The Texas Railroad Commission will conduct a hearing at Childress March 7 on the city's recent ordinance lowering gas rates.

A hearing was granted the Northern Texas Utilities Co. on appeal from the ordinance. The ordinance was one of many passed by Texas cities last fall in a fight for lower rates. The old rates have remained in effect during the appeal, the gas company being required to post bond covering refunds should the commission find the rates unfair.

TO DRILL IN NEW YORK

ELMIRA, N. Y., Feb. 8.—Announcement that negotiations for the sale of gas from its five wells near Olean have been entered into with the Allegany Gas Co. has been made by officials of the Elmira Natural Gas Corp., who have also revealed a plan to drill more wells on its land in that vicinity. The Allegany company's pipe line passes a very short distance from the power house of the Elmira corporation at Portville, near Olean.

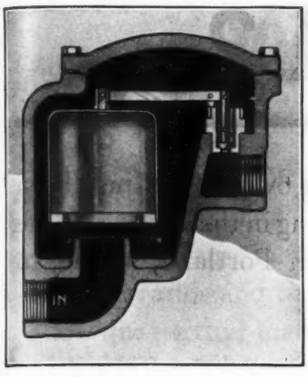
REGINA FRANCHISE SOUGHT

CHATHAM, Ontario, Feb. 6.—R. E. Williams and associates of Fabyan Petroleums, Ltd., of Vancouver are reported negotiating for a franchise to supply natural gas to Regina, Saskatchewan, from the Wainwright Field.

Oil Industry Equipment and Supplies

INVERTED BUCKET-TYPE STEAM TRAP ANNOUNCED

The Apex Regulator Co., Marshalltown, Iowa, division of the Fisher Governor Co., announces the Apex class ST steam trap or condensate drainer. The



trap is built in three-eighths-inch, one-half-inch, three-fourths-inch and 1-inch pipe sizes, suitable for all steam pressures up to a maximum of 125 pounds and a total steam temperature of 450° F. This trap is of the inverted bucket type, permitting intermittent discharge, unusually large capacity, and facilities for the elimination of air so that it will not air-bind. It has been designed for simplicity, minimum number of working parts, low cost and for ease of installation and maintenance.

The trap, the manufacturers say, will operate in a positive manner without dribbling. Both pipe connections are made in a horizontal plane and directly into the body so that the cover and working parts can be removed without disturbing the piping connections. After removing the cover it is necessary to loosen only one screw in order to remove the valve, lever, bucket and all other working parts. Full information may be obtained from the company which has prepared a bulletin describing the trap.

COMBINATION APPLIANCE INTRODUCED BY HOUSTON

A combination casinghead, blowout preventer, christmas tree and fire extinguisher has been perfected by the Houston Foundry & Machine Co., Houston, Tex. It is the invention of G. A. Humason and W. A. Raymond, the latter of whom is vice president and general manager of the company.

The device offers protection to the driller when drilling as well as being a complete casinghead with the fire extinguisher embodied in it. The lower part can be used when drilling in. The upper part has the christmas tree formed with the casting itself. When used as a blowout preventer the upper part is placed between the kelly and the drill stem, lowered into the bottom part, and locked by turning to the right. There are no threads, and the upper part seats with the lower part, forming an immediate seal. When tubing has been placed the upper part connects to the upper end of the tubing and locks into the bottom part of the head. Then the well is ready to be swabbed in.

The fire extinguisher enters into the bottom of the upper part of the head and forms a part of the tubing connection. This insert has ball seats if required, and connects by a series of holes on the side, which permits fluid to enter the bowl or christmas tree connection. The casing is packed off below the flow lines in the lower part of the head, which completely shuts off fluid between tubing and casing.

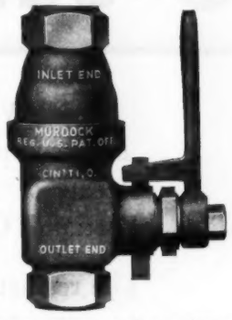
The flow line is connected with a pipe which can be extended about 200 feet from the well and used in case of fire by connecting it with a steam boiler or water line or chemicals, or even mud. The fire extinguisher attachment does not interfere with swabbing or pumping the well as the full size opening of the pipe is always maintained.

The properties and advantages of a new alloy steel are discussed in Technical Bulletin No. CV-1, "Chrome-Vanadium Nitriding Steel," copies of which will be sent upon request to the Electro Metallurgical Co., 30 East Forty-second Street, New York.

Q.O.C. VALVE CANNOT BE LEFT PARTLY OPEN

Radical departure from conventional types is found in both the interior and exterior design of the Q.O.C. air valves, introduced into the oil industry by the Murdock Manufacturing & Supply Co., Cincinnati, Ohio.

Workmen cannot leave the valve partly open. It is either full on or full off, for the instant the cam is turned past



the center pressure and a spring operate to close the valve positively. The valve is closed and held tight by pressure. The spring is an auxiliary, useful in case the valve is installed in horizontal or diagonal positions.

The valve cannot be forced or jammed at the seat, for the instant it is down on the seat the cam is disengaged and idle. The up-and-down action eliminates friction at the seat. The valve, according to the manufacturers, does not require regrinding. The disc is standard and renewable, but the wear is negligible. The gland, or stuffing-box, can be repacked without taking the valve from the line or shutting off the air. The Q.O.C. is said to be suitable for almost any place where compressed air is used. It is not recommended for water because of its quick opening and possible shock to the pipe line.

In a test under 100 pounds pressure a Q.O.C. air valve was said to be still tight after being opened and closed 30,000 times at the rate of 40 full operations per minute.

ALCO HEAT EXCHANGERS HAVE VALUABLE POINTS

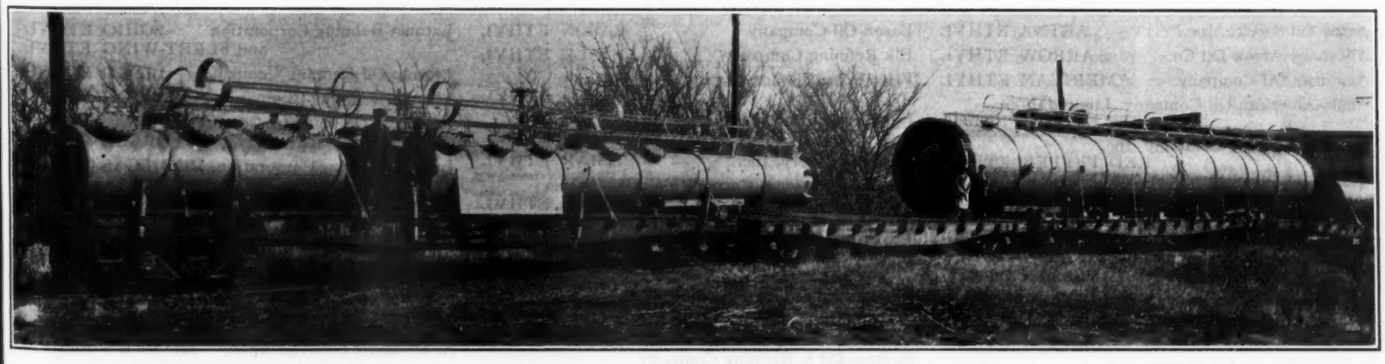
The Alco lock-forged construction of heat exchangers embodies the following features, according to the manufacturer, Alco Products, Inc. (division of the American Locomotive Co.), New York:

Complete absence of steel castings; shell flanges, channel flanges and shell cover flanges all rolled, pressed or forged steel mechanically locked to the shell without the use of circumferential weld; all gaskets definitely confined; owing to the design, all gaskets unusually close to the center of the bolts with a result that the maximum gasket stress desirable is obtained; channel cover may be supplied with either hookbolt attachment or backing up ring (hookbolt construction allows for removing covers without taking the nuts off any bolts, but just backing them off sufficiently to allow them to turn out of the hookbolt groove); small annular space between bundle and shell, double grooved tube sheets and metallic gaskets; hookbolts of high tensile chrome nickel alloy steel; so designed that lock-forged construction and cast-iron parts are interchangeable throughout, depending on temperatures and pressures involved.

EXPLOSION-PROOF STARTER

A new motor starter built by the Electric Controller & Manufacturing Co. of Cleveland, Ohio, is known as the "No. 1 Type ZEO across-the-line explosion-proof starter." It has been approved by the underwriters for Class 1, Group D hazardous locations. The inclosing case is strong and tight enough to prevent the transmission of any flame that may occur within the case to surrounding atmosphere, and the flanged joint between the upper and lower parts of the case is of sufficient length to cool any gases formed within before they can come in contact with the surrounding atmosphere. The contactor mechanism and overload relays are mounted on a slate base which is removable from the case. The main contacts and overload relay contacts are oil immersed and all working parts are kept well lubricated and protected from corrosion by capillary attraction of the oil.

REDUCING TOWER, TOPPING TOWER, ABSORBER TOWER AND GAS SEPARATOR PRESENT INTERESTING B., S. & B. JOB



A heavy pressure vessel and a welding job of interest were completed recently at the shop of the American Tank & Equipment Corp. of Oklahoma City, Okla., the manufacturing subsidiary of Black, Sivalls & Bryson, Inc., Bartlesville, Okla. The photograph shows the shipment made to the Octane Oil Refining Co., of Chautauqua, Tex., for a new 1,400-bbl. refinery now being built. The towers were engineered by the A. J. Smith Co., of Kansas City, Mo. Four cars were required to transport the shipment.

The largest vessel in the shipment was a reducing tower and vaporizer 9 feet in diameter by 76 feet 4 inches long, complete with trays. This vessel weighs 101,959 pounds. In addition there was a topping tower, 4 feet in diameter by 60 feet, an absorber tower 3 feet in diameter by 40 feet long, and a gas separator 5 feet 6 inches in diameter by 15 feet 6 inches. The weight of the topping tower is 26,127 pounds, the gas separator 5,800 pounds and the absorber tower 9,585 pounds.

Speed was essential to meet the buyer's program of construction, and experienced men worked in shifts throughout the entire 24 hours a day. Welded vessels were entirely "BS&B flexweded." "BS&B flexweld" is a welding process technique of which has been developed by the research department of Black, Sivalls & Bryson. The welds are ductile and capable of withstanding repeated stresses.

The vessels were stress-relieved in an annealing oven large enough to accommodate a vessel 11 feet in diameter and 80 feet long, providing facilities for stress-relieving the largest fabricated vessels which can be transported economically by rail.

Answering

WHO SELLS ETHYL?

A SURVEY of thousands of individual car owners has just been completed. They were questioned—sitting in their cars—on the streets of 43 cities, towns and villages from Portland, Maine, to Portland, Oregon.

The result:

23% of the low-priced (below $1000) cars use Ethyl Gasoline *regularly*.

27% of the medium-priced ($1001-$2200) cars use Ethyl Gasoline *regularly*.

42% of the high-priced (over $2201) cars use Ethyl Gasoline *regularly*.

39% of all car owners interviewed buy Ethyl Gasoline either regularly, part of the year, or occasionally.

In other words, men and women owning cars of *every* make and price class are among the several million satisfied users who make

Here are the names of the oil refining companies selling Ethyl Gasoline. Nearly

Aetna Oil Service, Inc. AETNA ETHYL
Allegheny-Arrow Oil Co. ARROW ETHYL
American Oil Company AMERICAN ETHYL
Anglo-American Oil Company, Limited PRATTS ETHYL PETROL
Ashland Refining Company, Inc. RED PEPPER ETHYL
Associated Oil Company ASSOCIATED ETHYL
Atlantic Refining Company ATLANTIC ETHYL
Barnsdall Corporation SUPER-GAS ETHYL
British American Oil Company, Limited BRITISH-AMERICAN ETHYL
Canfield Oil Company CANFIELD ETHYL
Champlin Refining Company CHAMPLIN ETHYL
Colonial Beacon Oil Company, Inc. ESSO (with Ethyl)
Col-Tex Refining Company COL-TEX ETHYL
Continental Oil Company CONOCO ETHYL
Continental Refining Company CORECO ETHYL
Crystal Oil Refining Corporation CRYSTAL ETHYL
Deep Rock Oil Corporation KANT-NOCK ETHYL
Eason Oil Company EASON ETHYL
Elk Refining Company ELK ETHYL
Fleet-Wing Oil Corporation FLEET-WING ETHYL
Freedom Oil Works Company FREEDOM ETHYL
Garber Refinery, Inc. OMAR ETHYL
General Petroleum Corporation of California GENERAL ETHYL
Glasgow Oil and Refining Company, Inc. GLYCO ETHYL
Globe Oil & Refining Co. GLOBE ETHYL
Gulf Refining Company NO-NOX ETHYL
Hickok Oil Corporation HI-SPEED ETHYL
Home Oil Distributors, Limited HOME ETHYL
Humble Oil & Refining Company ESSO (with Ethyl)
Imperial Oil, Limited IMPERIAL ETHYL
Independent Oil and Gas Company INDEPENDENT ETHYL
Indian Refining Company, Inc. TEXACO ETHYL
Johnson Oil Refining Company JOHNSON ETHYL
Kanotex Refining Company KANOTEX ETHYL
Kendall Refining Company KENDALL ETHYL
Latonia Refining Corporation SOHIO ETHYL and FLEET-WING ETHYL
Lincoln Oil Refining Company LINCO ETHYL
Lion Oil Refining Company LION ETHYL
Louisiana Oil Refining Corporation LORECO ETHYL
Lubrite Refining Corporation, MOBILGAS ETHYL
Magnolia Petroleum Company MAGNOLIA ETHYL
McColl-Frontenac Oil Co., Ltd. CYCLO ETHYL
Mexican Petroleum Corporation, PAN-AM ETHYL
Mid-Continent Petroleum Corporation NEVR-NOX ETHYL
Midwest Refining Company MIDWEST ETHYL
A. D. Miller Sons' Company MILLER'S ETHYL
National Refining Company WHITE ROSE ETHYL
Ohio Oil Company MARATHON ETHYL
Oil Creek Refining Company OIL CREEK ETHYL
Pan American Petroleum Corporation PAN-AM ETHYL
Pasotex Petroleum Company RED CROWN ETHYL

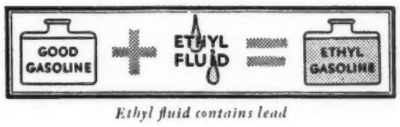
your Questions:

WHO BUYS ETHYL?

Ethyl Gasoline the largest selling brand of motor fuel in the United States and Canada.

Many of these car owners know practically nothing about compression ratios and the anti-knock qualities of gasoline. But they do know that Ethyl makes ANY car run better. Many who own cars with relatively low compression engines buy Ethyl Gasoline because they are willing to pay a premium for the better performance it gives their cars.

The trust the American public places in Ethyl Gasoline is justified by its quality on every count. Each oil refiner selling Ethyl uses a base gasoline that will pass tests for purity and volatility in Ethyl laboratories, then adds at least enough Ethyl fluid to bring the anti-knock rating up to the Ethyl standard. After the finished Ethyl Gasoline has been approved and released for distribution, inspectors collect samples from roadside pumps for checking. The quality of Ethyl Gasoline is thus doubly safeguarded. Ethyl Gasoline Corporation, Chrysler Building, New York City.



Ethyl fluid contains lead

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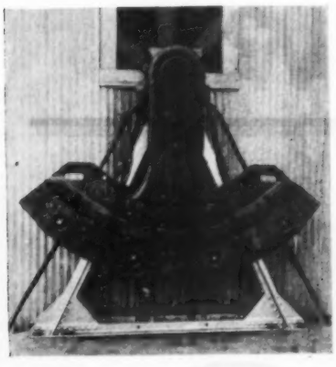
every leading oil refiner in the United States and Canada is included in this roll call.

Pennsylvania Oil Products Refining Co. ELDRED ETHYL
Pennsylvania Refining Company PENN-DRAKE ETHYL
Pennzoil Company PENNZOIL ETHYL
Phillips Petroleum Company PHILLIPS '66' ETHYL
Producers and Refiners Corporation PARCO ETHYL
Pure Oil Company PUROL ETHYL
Refiners, Inc. REFINERS ETHYL
Regal Petroleum Company, Limited REGAL '66' ETHYL
Richfield Oil Company of California RICHFIELD ETHYL
Richfield Oil Corporation of New York RICHFIELD ETHYL
Rio Grande Oil Company, RIO GRANDE ETHYL
Root Refining Company ROOT ETHYL
Shell Company of Canada, Limited SUPER-SHELL ETHYL
Shell Eastern Petroleum Products, Inc. SUPER-SHELL ETHYL
Shell Petroleum Corporation SUPER-SHELL ETHYL
Shreveport-El Dorado Pipe Line Company SPARCO ETHYL
Sinclair Cuba Oil Company, S. A. SINCLAIR H-C GASOLINE with ETHYL
Sinclair Refining Company SINCLAIR H-C GASOLINE with ETHYL
Skelly Oil Company, SKELLY AROMAX ETHYL
Solar Refining Company SOLAR ETHYL
Standard Oil Company of California STANDARD ETHYL
Standard Oil Company of Cuba ESSO (with Ethyl)
Standard Oil Company (Indiana) RED CROWN ETHYL
Standard Oil Company (Kentucky) CROWN ETHYL
Standard Oil Company of Louisiana STANDARD ETHYL and ESSO (with Ethyl)
Standard Oil Company (Nebraska) RED CROWN ETHYL
Standard Oil Company of New Jersey STANDARD ETHYL and ESSO (with Ethyl)
Standard Oil Company of New York SOCONY SPECIAL plus ETHYL
Standard Oil Company (Ohio) SOHIO ETHYL
Standard Oil Company of Pennsylvania STANDARD ETHYL and ESSO (with Ethyl)
Sterling Oil Company STERLING ETHYL
Stoll Oil Refining Co., Inc. STOLL ETHYL
Texas Company TEXACO ETHYL
Texas Pacific Coal and Oil Company T-P ETHYL
Tidal Refining Company TYDOL ETHYL
Tide Water Oil Company TYDOL ETHYL
Tri-State Refining Company TRI-STATE ETHYL
Union Oil Company of California, UNION ETHYL
United Refining Company KEYSTONE ETHYL
Utah Oil Refining Company PEP '88' ETHYL
Vacuum Oil Company, Inc. MOBILGAS ETHYL
Wadhams Oil Corporation WADHAMS ETHYL
Waverly Oil Works Company, WAVERLY ETHYL
White Eagle Oil Corporation WHITE EAGLE ETHYL
White Star Refining Co. WHITE STAR ETHYL
H. F. Wilcox Oil & Gas Company WILCOX ETHYL
Wirt Franklin Petroleum Corporation PALACINE ETHYL
Wolverine-Empire Refining Company, Inc. EMPIRE ETHYL

Oil Industry Equipment and Supplies

COUNTERBALANCE OF NEW TYPE IS PUT ON MARKET

The Parkersburg Rig & Reel Co.'s new Type C counterbalance provides for strokes up to 72 inches. This new assembly consists of a crank member bored for



six wristpin openings to fit standard A.P.I. wristpins. It is pressed on the crankshaft under hydraulic pressure so it cannot come loose. The outer end of the crank is carried out in a fan-tail shape and provided with cast projections which fit similarly shaped recesses in the main weight of the counterbalance.

On the back of the crank is a cast tongue which fits into a groove near the top of the main weight. The bosses on the end of the crank absorb all torque strains, and the tongue and groove arrangement absorbs the weight of the main and auxiliary weights. These exclusive features minimize the strain on the bolts that attach the main weight to the crank and thereby prevent the development of looseness or play.

When disengaged, the weights are suspended from hanger rods attached to the jackpost bearing, or if the installation consists of a unit with concrete foundation, they are supported on two pins set in the foundation. The proper lead or lag can be obtained by a simple adjustment of the main weight.

Auxiliary weights can be removed or added to produce the proper counterbalancing effect. The effective counterbalance weight at the sixth hole ranges from 3,800 to 5,600 pounds.

The entire assembly, as may be seen from the illustration, is compact and so designed as to permit engaging and disengaging the main and auxiliary weights speedily and easily, thus saving time. Thorough tests in the fields are said to have proved the value of this pumping appliance. Further details and exact specifications may be obtained by writing either to the main offices of the Parkersburg Rig & Reel Co., Parkersburg, W. Va., or district offices in Dallas, Houston, Tulsa or New York.

HEXAGONAL PACKING BLOCKS

The United States Stoneware Co., Akron, Ohio, has received a manufacturing and selling license from Andrew M. Fairlie of Atlanta, Ga., in connection with the Fairlie patents on "Hexahelix" and "Cyclohelix" tower packing rings, used in fractionating towers. A new double spiral type has been perfected in which both sides of the spiral are wetted, a feature which increases the effective contact surface. The hexagonal shape of "Hexahelix" packing blocks results in the elimination of voids between rings. This makes for a compulsory tortuous course for both the gas and the liquid. All of the gas and all of the liquid must pass spirally within the packing.

BULLDOG PUMP JACK IS DEVELOPED BY SHAFFER

The Shaffer Tool Works, Brea, Calif., has placed on the market the Shaffer Bulldog pump jack, which is said to have unusual smoothness of operation because the weight of the rods is carried at all times by an air cushion which acts like the shock absorbers of an automobile, thus eliminating the shock or whip of the rods. Counterbalancing is achieved by means of air pressure with a small air compressor, designed to eliminate the strain caused by the inertia of the usual large counterbalances.

The balance is adjusted to a nicety by setting the air pressure to the right

point. This can be done without stopping the well. As a result of this perfect balance less power is required for the same work. The pump jack folds back when the well is to be pulled. There is no moving of the jack and no heavy counterbalance weights to disconnect or handle.

The accompanying picture shows a Shaffer pump jack which recently completed a long test on a California well. It is 52-inch stroke, 20 strokes a minute; 2¼-inch barrel. The well was 5,300 feet deep.

PACIFIC METER WORKS EXPANDS

The American Meter Co. announces that the Pacific Meter Works has assumed sales and service on the Pacific Coast of Westcott orifice meters, gauges and other control devices manufactured by the Metric Metal Works factory of the American Meter Co. These products formerly were handled on the coast by Westcott & Greis, Inc., sales agents for Metric Metal Works and other manufacturers in the Mid-Continent Field. The new arrangement has been consummated with the assistance and co-operation of the Westcott & Greis organization. A complete stock of parts and instruments will be carried by the factories of the Pacific Meter Works located at 2118 Atlantic Street, Los Angeles, and at 495 Eleventh Street, San Francisco. The same warehouse and sales facilities will also be offered on other gas and oil industry products formerly handled on the coast by Westcott & Greis as agents for Crosby Steam Gauge & Valve Co., Taylor Instrument Co., Meriam Co. and the Robinson Orifice Fitting Co. Assumption of these agencies gives the Pacific Meter Works a complete line of devices for the measurement and control of gas, oil and water in the Pacific Coast territory.

Sales and service in southern California will be under the personal supervision of Kenneth C. Tomlinson, assistant manager of the Pacific Meter Works. His headquarters will be at the Los Angeles factory.

SIMPLIFIED WELDER IS INTRODUCED BY HOBART

The Hobart model MG-125 electric arc welder, placed on the market by Hobart Brothers, Troy, Ohio, embodies a "unitrol" dial, inbuilt four-brush exciter, "constant-arc" windings, "Navy type" reactance, end bearing single shaft and arc-welded steel construction.

A single heavy-duty shaft carries the generator, motor and exciter armatures with cooling fan. Laminations of special electrical steel are arc-welded to form pole pieces and rotors.

The "unitrol" dial is designed to make it easy to come back to the same setting for the same type of work and be sure of getting the same results. Plain markings indicate the setting and size of electrode to use on various thicknesses of material.

The inbuilt four-brush exciter is said to eliminate troubles due to loosening up of externally mounted exciters and the polarity reversals that interfere with production.

"Constant arc" windings are incorporated to insure absolute control of the arc throughout the entire welding range, with thorough penetration and perfect fusion.

"Navy type" reactance is to insure arc stability and quick recovery. Heavy twin coils have laminated steel cores.

The motor, generator and exciter armatures are carried by a single, heavy-duty shaft with oversize ball bearings at the ends.

LANTERN APPROVED FOR HAZARDOUS LOCATIONS

Announcement has been made that Ecolite, a newly designed portable electric lantern made by the Economy Electric Lantern Co., 325 West Huron Street, Chicago, has been passed by the Underwriters' Laboratories for use in hazardous locations.

Safety is obtained by an ingenious, simple arrangement by which removal or breaking of the lens immediately opens the circuit, thereby eliminating any possibility of ignition from the lamp filament. A spark-proof base, wireless switch, safety finish and various other features characterize the new Ecolite and provide factors of safety.

WELL HOOKUP PERMITS FULL OR CURBED FLOW

The Kerotest Type 101 well hookup, perfected by the Kerotest Manufacturing Co., Pittsburgh, Pa., permits full open flow from the tubing or restricted flow through the control choke.

The control choke, size 3 inches, is made with forged steel body and bonnet, alloy steel stem, hardened and ground steel needle point and orifice bushing. A bronze indicator is provided on stem and yoke to show the exact area of opening at all times. A locking wrench is provided under hand wheel to maintain stem and seats in positive position.

The Kerotest 3-inch control choke is made with a cross type of body, and on this unit is mounted in direct line with the tubing. By withdrawing the bull plug from top of control choke, the stem may be withdrawn so as to give a clear way for passing a swab through the control choke and down the tubing. This provides a simple and economical way of handling the swabbing operations, as it entails the removal of one bull plug only.

MEN KNOWN *in* THE EQUIPMENT FIELD

A. H. Kasishke, president of A. H. Kasishke, Inc., rig-building contracting firm of Tulsa, is only 39 years old, but has had unusual experience in the rig-

A. H. Kasishke

building field. He is credited with having built the first steel derrick in Oklahoma. Included in his 20 years of operation in that State, Texas and Kansas are 500 derricks built in the Seminole Field during its boom days and 200 in the Oklahoma City Field.

Mr. Kasishke formerly was president of the A. H. Kasishke Rig & Lumber Co., with yards in Sasakwa, Konawa, Maud and Asher. Selling his interest in this business, he took over the J. A. Werme Steel & Iron Works in Oklahoma City and began the manufacture of steel derricks. With a plant in Oklahoma City 600 feet long and 150 feet wide, it is planned to begin the manufacture also of steel walking beams, rig irons, steel fronts, etc., and to make turnkey contracts.

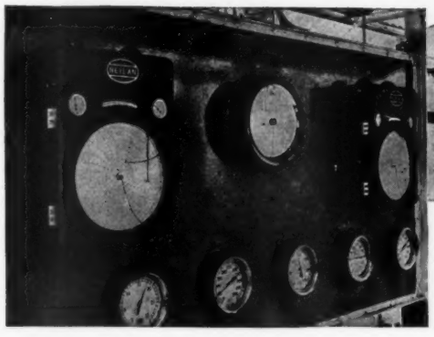
NEW TRUCKS ANNOUNCED BY RELAY-MOTORS CORP.

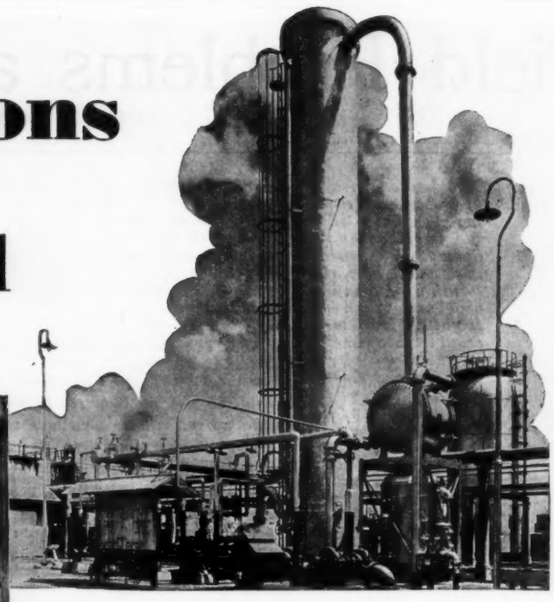
The Relay-Motors Corp., Lima, Ohio, announces a new line of motor trucks. Models 230 (5-ton) and 240 (7½-ton) are being shown and other new models will follow. These two units are powered by "Relay-Hercules" engines developing 126 and 162 horsepower respectively.

New heat-treated frames of the fish-belly type are used. The channel measures 11½ inches in the deepest section of Model 230 and 12½ inches for the Model 240. Newly designed 15-speed "Relay, Brown-Lipe" transmission is standard equipment. Cabs are thoroughly insulated and equipped with hot water heater. Shatterproof glass is used throughout.

New motor features are the Nitralloy crankshaft with full counterweights and the Stellite valve seats which are spun in. Two water pumps, two oil filters and a large oil sump type air cleaner are provided. The fundamental consideration has been to provide speed and ample power with economy and driver comfort.

New Installations Demand Advanced Control





Neilan furnishes it!

Neilan Rota-Port Synchronizers developed in and for the oil industry. They provide the flexibility which enables a Neilan Instrument to be instantly synchronized with the speed of any process.

New processes can be no better than their control equipment.

Neilan regulators and liquid level controllers have long made new processes possible with their exact regulation. Neilan Instruments now occupy a similar position in precision control of temperatures, pressures and flows. Closer cuts in fractionation are the result of temperatures which can now, for the first time, be held at exact points by means of the Neilan Thermo-Pressure Compensating Temperature Controllers.

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Field Problems and Their Solution

EDITED BY THOMAS F. SMILEY

In order that men connected with the drilling, producing and transporting branches of the petroleum industry may procure quickly a solution of many problems confronting them from time to time in their work, The Oil and Gas Journal has arranged with leading engineers and other recognized authorities to answer questions submitted by readers of this publication pertaining to the work of drilling and producing crude oil and transporting this product.

Everyone is invited to submit questions freely. These questions will be submitted to proper authorities by Mr. Smiley, who edits the page, and answers, based on the best available information, will be published. Each question should give as much detail as possible, especially where it relates to matters where depths of sands, types of sands and operations on adjoining properties would have a bearing on the problem involved. The source of all questions will be considered as confidential and only initials will be published in connection with the question.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or practices which are improvements.

In case an immediate answer is important, one will be given by mail if the writer requests it.

FINDING CONSUMPTION OF GAS

How much gas will a gas engine consume per horsepower daily with the engine running at average pumping speed, say 180 to 200 r.p.m.?

How much gas will an ordinary drilling boiler consume per horsepower daily in ordinary drilling operations? Also how much water?—E. I. D.

Several factors have a decided influence upon the performance of either gas engines or steam boilers, but below are data that may serve your purpose. A comparison of fuel per horsepower per hour for gas engine shows the following: Commercial gas engine, 9 cubic feet; oil country type gas engine, 13 cubic feet; steam engine with cutoff, 40 cubic feet; steam engine without cutoff, 80 cubic feet; oil country type steam engine, 130 cubic feet.

Jeffery's "Deep Well Drilling" states that 1 cubic foot of natural gas will evaporate 1 pound of water and that 1 cubic foot of natural gas equals 966 British thermal units.

He gives also the following rules for estimating the power of steam boilers:

Flue boiler—Twelve feet of heating surface will produce one horsepower. The heating surface is two-thirds the surface of the cylinder; also the entire surface of all the flues.

Tubular boiler—Fifteen feet of heating surface will produce one horsepower. The heating surface is two-thirds the surface of the cylinder; also the entire surface of all the tubes.

One nominal horsepower will require 1 cubic foot of water per hour.

Horsepower of steam boilers — The A.S.M.E. has defined the unit horsepower as equivalent to 34.5 pounds of feed water per hour evaporated at temperature of 212° F. into steam at the same temperature. This is based on the original definition of the evaporation of 30 pounds of water per hour at temperature of 100° F. into dry steam under pressure of 70 pounds per square inch above atmosphere.

EAST TEXAS AN ACCIDENT

Was the East Texas Field discovered through the use of geophysical instruments? Can you tell me something about its geological characteristics? At what depth is the oil found? Is there one big pool or a group of pools? Is it possible to make a reasonable estimate of the ultimate recovery from this field? Is the drilling done with cable tools or rotary? —D. D. S.

Discovery of the East Texas Field, the largest in the world, was not the result of geophysical prospecting nor did it come about through any surface indications pointed out by geologists as favorable for the accumulation of oil. The Joiner well, which opened the area in December, 1930, was an unqualified wildcat, drilled without geological advice or sanction, and the enormous field may be characterized quite accurately as an accident.

Most of the wells go to a depth of about 3,700 feet. It was believed at first that the field consisted of a group of separate pools, but the hundreds of wells drilled indicate clearly one continuous pool embracing approximately 165 square miles. Estimates of ultimate recovery vary. The more conservative ones range from 1,500,000,000 to 2,000,000,000 bbls. All drilling is done with rotary equipment.

According to E. G. Woodruff, geologist of Tulsa, the accumulation of oil in the East Texas Field is along an old "shore line" and not the usual anticline or dome structure. In fact there is no "structure" or other surface feature which would lead a geologist to make a location in the field. This "shore line" is where the ocean was along the land in ancient time. In earlier geological time there was a large circular island in the Cretaceous sea; it was approximately 100 miles across and the highest part was in the vicinity of Shreveport, La. There was sea about this island and part of the shore was across Gregg and Rusk Counties with shallow water to the west in Upshur and Smith Counties. Though the island was not very high at any time it was elevated enough in Woodbine time for the sandstones of that time to wash down and be redeposited along the shore. These form the upper sands which now bear oil and the undisturbed Woodbine the lower group of sands. The erosion continued until the Georgetown limestone was bare over most of the island. Hence there are no sands to the east of the field over a big area.

As a result of these geological movements and the erosion, the Woodbine sands are slightly tilted against the Georgetown high sand and above these sands are the irregular beds of sand and shale also dipping westward. It is just a big wedge of formations with the sharp edge to the east and the thicker part to the west and lower in that direction. Below these strata there are limestones through which the oil cannot pass and above are impervious beds through which it cannot escape. Thus the oil is trapped. The fluids are held in the sands with the oil in the higher parts to the east and the water below and in the lower part to the west

MEASURING OIL IN "FOURBLES"

On page 13 of The Oil and Gas Journal of November 19, 1931, there is the following statement in the report of Cranfill-Reynolds well in Upshur County, East Texas: "The well tested 27 fourbles of 35 gravity oil in 11 minutes." The writer would like to know what "fourbles" are and why a more definite and accurate statement of the production from this well was not given.—I. A. L.

The terms "trible" and "fourble" have come into use in connection with rotary drilling and signify the number of joints of drill pipe that are pulled out of or lowered into a well at one time. A "trible" is three joints of drill pipe, and a "fourble" four joints. As drill pipe is made in longer joints than formerly, a "fourble" is now estimated as being about 90 feet long, while a "trible" is about 70 feet long.

In rotary drilling it is necessary to pull all drill pipe out of the hole at intervals in order that the bits may be changed as they dull. With deeper drilling it has been common custom to use derricks at least 122 feet high and to handle four joints of drill pipe at a time.

As the pipe is withdrawn from the hole it is unscrewed and each section of three or four joints is set up in a "stand" in the derrick. When the drill bit has been changed the pipe is lowered into the hole, each section of it being handled in the reverse of the order in which it was taken from the hole; that is, it is removed in its turn from the "stand" in the derrick, screwed on and lowered into the hole.

As a rotary hole is kept full of mud during drilling operations and with this mud in the hole it is difficult to test showings, various devices known as "sand testers" have been invented. An article entitled "Sand Testers Essential Equipment," by J. D. Thomson, was published in the February 13, 1930, issue of The Oil and Gas Journal and you are referred to it for details about this method of testing rotary drilled wells.

Prof. H. C. George, University of Oklahoma, Norman, Okla., in his recently published book, "Oil Well Completion and Operation," gives the following brief description of the use of sand testers:

"It is common practice with rotary equipment to drill ahead and core with a bit of smaller size when it is thought that an oil or gas-producing sand has been reached in drilling. Drilling ahead with a smaller bit is known as 'rat-holing.' Reducing the size of the hole restricts the volume of oil and gas which can enter the well, if production is obtained, and lessens to some extent the probability of a disastrous blowout when the gas pressure is high. This method of rat-holing ahead makes it possible to condition the hole at any time and to run the sand tester whenever it is desired to test the fluid content of a formation without running pipe.

"If coring and the fluid content indicate a probable pay sand, the full-sized hole is carried down and the pipe set in formation from 3 to 50 feet about the sand.

"The sand tester is run into place and the tapered packer is seated in the formation above the sand to be tested, while the perforated pipe extends into the rat-hole. This perforated pipe conducts the oil, gas or water of the sand up through the packer. Above the packer is a quarter turn of drill pipe. The drill pipe is run into the well dry, with the stopcock closed. After the packer is seated, the stopcock is opened, allowing the fluid in the sand to enter the drill pipe. After standing from 15 to 45 minutes the stopcock is closed and the drill pipe and testing device are removed from the well with the sample of fluid."

As the drill pipe is removed and unscrewed a check is made for the first appearance of fluid inside of the string and in the case referred to it did not show up until the 109th joint of pipe from the bottom was unscrewed. It therefore was reported as testing 27 fourbles of oil, and the time given was that during which the tester was open at the bottom of the hole to permit the fluid to enter the drill pipe.

As to the quantity of oil that may be entrapped inside drill pipe, it will vary with the size and weight of the pipe. The interior of the drill pipe is a long, small diameter cylinder and unless all details as to its size and weight are known no definite measure in barrels of oil can be determined.

The use of the term is common among oil scouts working rotary territory and among drillers and operators, and while it does not mean much to the average reader, and might better be translated into barrels of oil, this is not usually done because, as stated, it is only a preliminary test and merely indicates that oil has been found in a certain well.

If the test indicates to the operator that the sand may be commercially productive of oil and gas it is next necessary to set the casing and complete the well in the prescribed manner and after the mud has been removed to permit the well to flow into tanks for correct gauging. This report usually follows the preliminary one and gives some real indication of the capacity of the well.

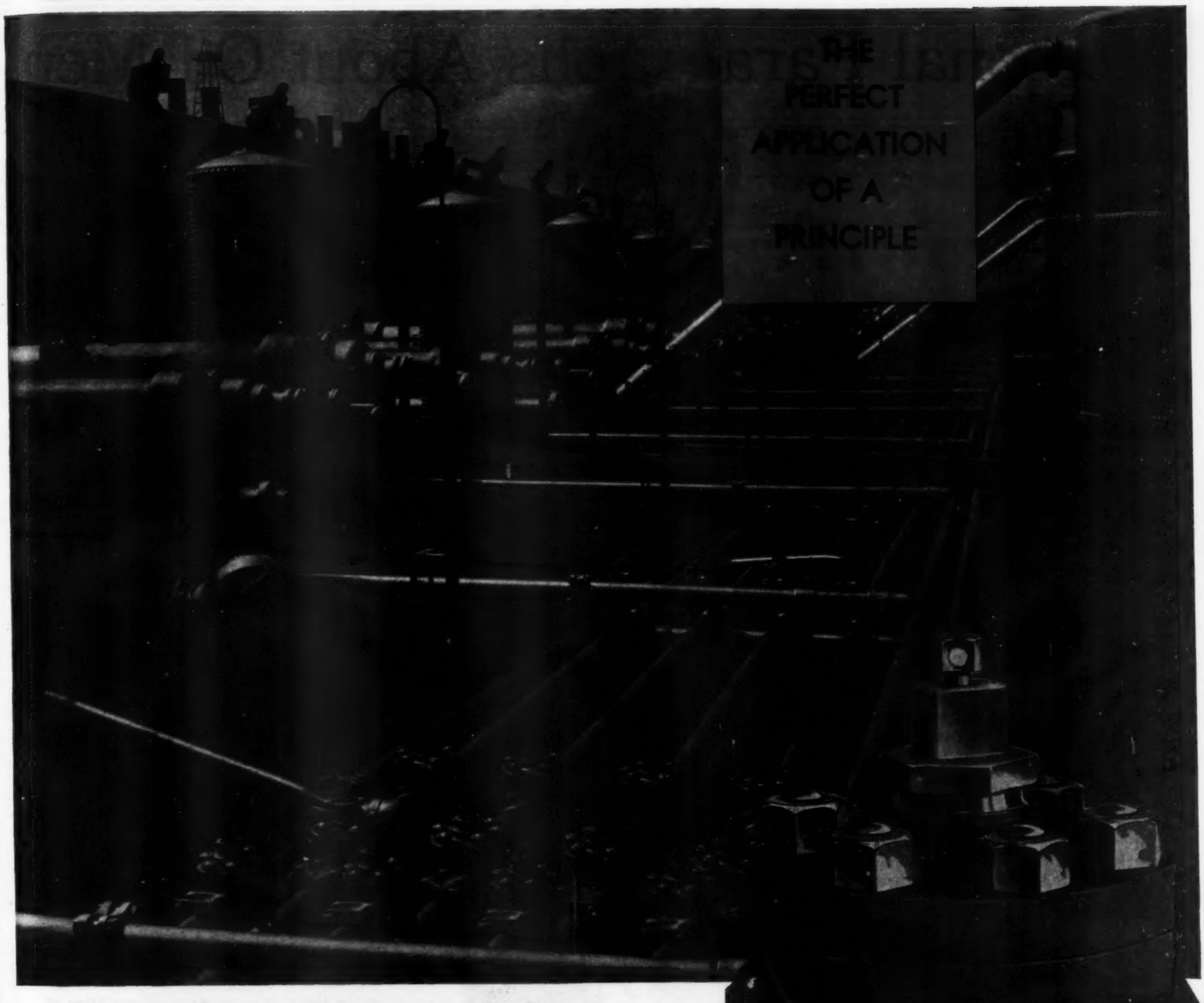
Fourble is a common term in all rotary drilled fields. "Fourbles of oil" is a relative term and to convert it to "barrels of oil" it is necessary to have complete information as to size and weight of drill pipe used in making the test and when the interior diameter of this pipe is known it is possible to figure its cubic contents and then arrive at approximately the amount of oil it contained.

In the instance referred to it is understood that the inside diameter of the pipe was 4 inches and that it therefore would hold about .6528 gallons of 231 cubic inches each for each foot of length. If the fourbles are estimated at 90 feet each, and 27 of them were full of oil, there would have been 2,430 feet of oil in the hole. This would have equaled 1,586.22 gallons, or about 37.3 bbls. of 42 gallons each. This assumes a fourble length as 90 feet and without exact measurement at the well of the particular pipe used there is also a chance for variation in that detail.

WHY WAS IT CALLED THAT?

JACOB'S WELL

To folk familiar with the greatest book ever written Jacob's well is the one near Nablus, in Syria, immortalized by John in his narrative concerning the woman of Samaria. The very fact that the name was given to a well drilled in Pennsylvania back in 1870 indicates that at least some oil men of that day knew their Bible. A company formed by Butler County citizens leased 90,000 acres of land in that county and drilled eight wells, each 800 feet deep, but none found oil in paying quantity. One was named "Jacob's well" in honor of Jacob Ziegler, editor of the Butler Herald, with allusion of course to the one hewn out of rock by the Hebrew patriarch. With the discontinuation of operations the leases were forfeited and the company joined the endless train of unsuccessful petroleum ventures.



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Factory - Oakland, Calif.

Canada - Pocock Bros., Ltd., Montreal, Toronto, Winnipeg, Vancouver. (Also Sydney, N. S.) England - Audley Engineering Co., Ltd., Newport, Shropshire. Buenos Aires, Argentine - General Electric, Soc. Anon., Victoria 616 Esq. Peru.

Personal Paragraphs About Oil Men

Harvey S. Mecom, independent operator, Liberty, Tex., has returned from a two months' business trip in Mexico.

* * *

T. Sutter, sales manager of the Baker Oil Tools Company, Inc., Huntington Park, Calif., spent several days in Tulsa recently.

* * *

Walter F. Vogel, manager meter pump division, San Antonio Machine & Supply Company, San Antonio, Tex., spent the past week in Tulsa.

* * *

C. F. Mullens, sales manager of the Viking Pump Company, Cedar Falls, Iowa, was in Tulsa for a few days with Warner Lewis, local representative.

* * *

Ira Hicks, San Angelo, Tex., geologist and scout for the Amerada Petroleum Corporation, is critically ill in a hospital in Temple, Tex., after having an operation.

* * *

Edwin M. Jones of San Antonio, Tex., is on a vacation trip through the Panama Canal and will land on the Pacific Coast, and return home by rail. He will be gone a month.

* * *

Walter Fleming, of the Mid-Kansas Oil & Gas Company, has been making a business trip to West Texas, where the company owns large holdings in the Yates Pool, Pecos County.

* * *

A. J. Hazlett, editor and publisher of the Inland Oil Index, of Casper, Wyo., has been visiting in Tulsa, where he has many friends. He is en route to his old stamping grounds in Ohio.

* * *

Albert B. Lowrie, of Denver and Calgary, has sold his estate, "Lowriewood," on Vancouver Island to Maj. B. F. Rhodes of Cochrane, Alberta. Mr. Lowrie and family will move to California.

* * *

Harvey Stone, who has been with the Companhia de Petroleo de Angola, a subsidiary of the Sinclair Consolidated Oil Corporation, in Loanda, Angola, Africa, has returned to the United States.

* * *

H. L. Nickson, of Kansas City, Mo., takes the place of H. R. Berg, as division manager of the Ethyl Gasoline Corporation. Mr. Berg has been given a new assignment with the Ethyl corporation, in New York City.

* * *

P. D. Moore, geologist, who for the past six years has been with the Imperial Oil Company, Ltd., at Calgary, Alberta, has moved to San Angelo, Tex., and will be associated with his brother, John I. Moore, consulting geologist.

* * *

Edwin B. Hopkins, consulting geologist, is in San Antonio, Tex. Mr. Hopkins made San Antonio his headquarters and operating center for some time but lately has been in New York. He is arranging to operate in Southwest Texas again.

* * *

Capt. A. Taylor, who was in charge of the dogs with the Byrd South Pole expedition, is now in charge of field work for the Plains Production Company, operating in West Texas and New Mexico. Captain Taylor's headquarters are at Pecos, Tex.

* * *

Charles Brown, assistant to the president of the Associated Oil Company, with offices in San Francisco, has been appointed a member of the executive staff of the company and in his new capacity will have charge of general office management, supervision of the industrial relations department and direction of public relations.

* * *

Harry J. Underwood, assistant general manager of lubrication at St. Louis for the Shell Petroleum Corporation, has been transferred to the Chicago offices where he will be assistant division manager in charge of sales. He succeeds A. J. Ahsens, who is taking the post of assistant manager of operations at Moline, Ill.

M. F. Wilson, independent operator, El Dorado, Ark., was in Tulsa last week on business.

* * *

Charles N. Barney was elected secretary and treasurer of the Worthington Pump Company, succeeding William H. Baumes, retired.

* * *

Thomas E. Cochran, of Omaha, Neb., has been appointed Nebraska representative for the Nourse Oil Company, in the place of Ernest Bray.

* * *

W. B. Hagan, president of the Pecos Crude Oil Purchasing Company, and Pecos Pipe Line Company, San Angelo, Tex., has returned from a business trip to Chicago.

* * *

Cecil G. Wells, secretary-treasurer of the National Tank Company at Tulsa, made a trip to San Angelo, Tex., last week. Floyd L. Senter, Fort Worth, Tex., representative, accompanied him.

Men of the Industry

Ulrich B. Boucke

Ulrich B. Boucke, comptroller of the Associated Oil Company, was born in Germany, November 22, 1882. At the age of 15 he left his home to seek his fortune, arriving in San Francisco, Calif., early in 1898, where he has lived ever since. He became a citizen of the United States on April 17, 1906, the last day of the old San Francisco City Hall, which was destroyed by an earthquake April 18, 1906.

After having followed several other vocations, Mr. Boucke took a correspondence course in bookkeeping, typing and stenography and entered the service of the Southern Pacific Company in 1911 as a typist. A year later he was assigned to clerical duties in the accounting bureau of the Kern Trading & Oil Company (subsidiary of the Southern Pacific Company and in later years the Pacific Oil Company), advancing gradually to the position of special traveling accountant in the auditor's office of the Southern Pacific Company.

On February 1, 1921, Mr. Boucke took the position of personal clerk for the auditor of the Associated Oil Company. He was advanced to office manager of the accounting department, assistant auditor and then comptroller. He has supervision over the accounting methods and procedures used in recording the results of the company operations, and with the help of his accounting staff, serves managing officials by analyzing and reporting results shown by the various financial statements prepared by his department.

W. F. Brigance, of the Frick-Reid Supply Corporation, Tulsa, has been spending a few days in Texas on business.

* * *

Frank Stangl, Jr., geologist with the Stanolind Oil & Gas Company, has been transferred from San Angelo to San Antonio, Tex.

* * *

J. F. Hosterman, San Angelo, Tex., district geologist for the Amerada Petroleum Corporation, was in Fort Worth, Tex., last week.

* * *

J. M. McGregor, sales representative of the Taubman Supply Corporation, has gone to the Chapman factory at Indian Orchard, Mass., on a business trip.

* * *

John C. Wolke, formerly with Stanco, Inc., on February 1 became associated with L. Sonneborn Sons, Inc., of 88 Lexington Avenue, New York City.

* * *

H. W. Richards, Tulsa representative of the Mine Safety Appliance Company, has returned from a week's business trip to St. Louis and left again for Kansas City.

* * *

C. S. Robinson, vice president of the Youngstown Sheet & Tube Company, Youngstown, Ohio, who is on a trip through the Southwest, stopped in Tulsa and conferred with local representatives.

* * *

J. E. LaRue, of the geophysical department of the Humble Oil & Refining Company, Houston, Tex., has returned from a short business trip to Venezuela. The entire trip was made by airplane.

* * *

W. E. Riley, of the tank car sales department, Simms Oil Company, Dallas, Tex., has been on an extended business trip to St. Louis, Cleveland, Cincinnati and other cities in several northern states.

* * *

Pat S. Lewis, president, and C. B. Grant, sales manager, Resistcor Engineering Corporation, have returned from an extended business trip to factory connections in the East, including Cleveland, Chicago and Milwaukee.

* * *

W. R. Brown, purchasing agent of the Mid-Kansas Oil & Gas Company, has returned from Houston, Tex., where, as national director, he represented the Purchasing Agents Association of Tulsa at a district council meeting.

* * *

C. A. Prichard, purchasing agent of the Mid-Continent Petroleum Corporation, was in Chicago attending a meeting of the committee on uniform markings of valves and fittings of the National Association of Purchasing Agents.

* * *

G. A. Thompson, purchasing agent of the Empire Companies, Bartlesville, Okla., and chairman of the national committee on lumber of the N.A.P.A., has returned from New Orleans where he attended a conference with representatives of lumber manufacturers.

* * *

R. J. Bauereisen, San Antonio, Tex., valuation engineer, is representing the Texas state gas utility division in a valuation of the Texas Public Service Company gas lines supplying the city of San Angelo, in connection with the city's application for reduced rates on gas.

* * *

The district land and geological office of the Vacuum Oil Company at San Angelo, Tex., will be closed February 15. R. H. Woods, land man for the company, will remain at San Angelo. G. E. Green, district geologist, has been transferred to San Antonio, Tex.

* * *

G. A. Waring, geologist with the U. S. Geological Survey, is leaving his home in Tulsa this week for Seattle, Wash., from which port he will sail on the S. S. Admiral Evans on February 16 for Alaska to supervise core drilling work to be done in that country during the coming season.

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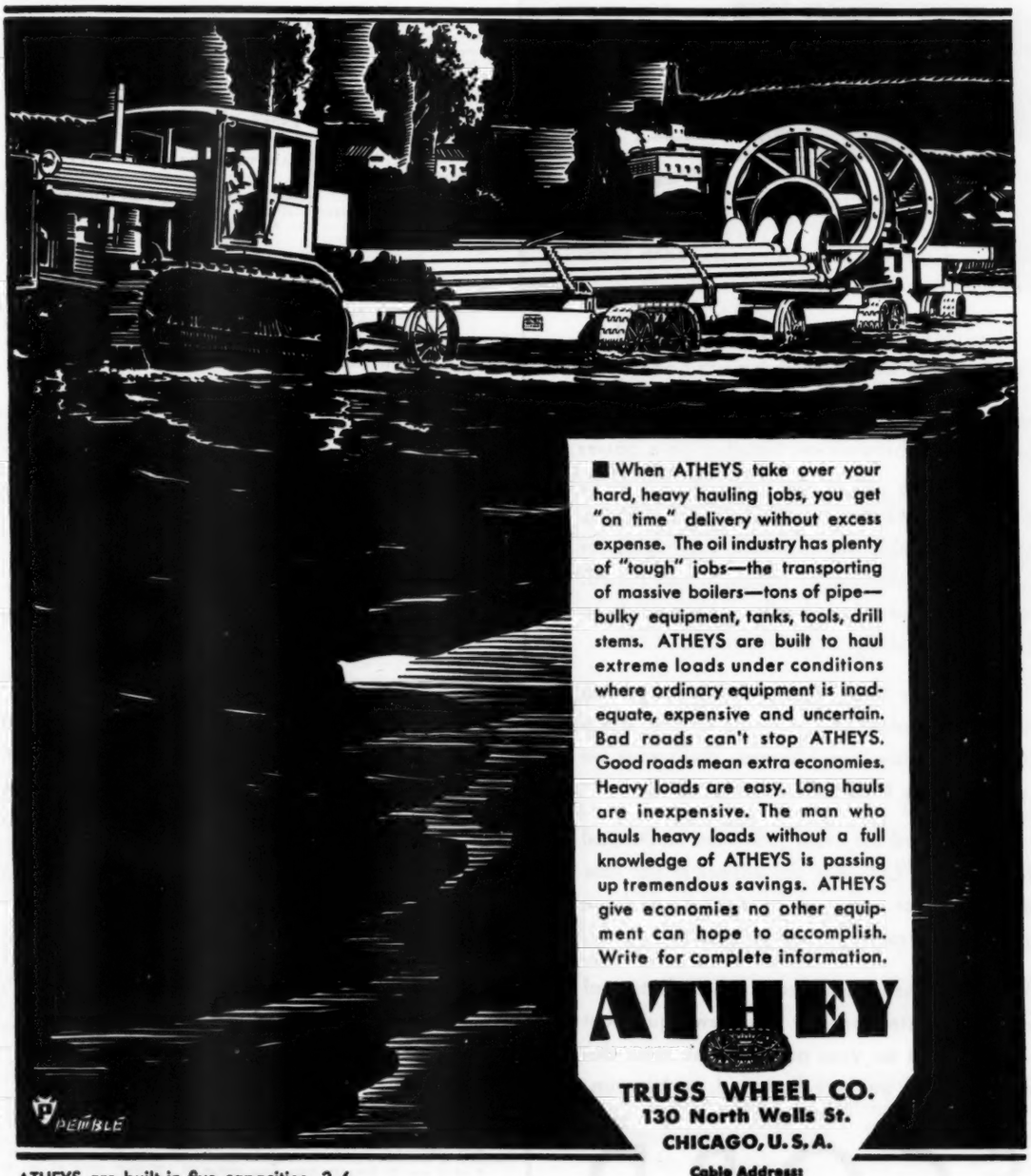

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Let McCord engineers assist you in the selection of the proper lubricator for your next new equipment or for replacement on your present—the same dependable service, as was here illustrated, can be yours.

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McCord also manufactures McKim Metallic Asbestos Gaskets widely used throughout the oil fields. Ask for catalog No. 17
DETROIT MICHIGAN

GULF COAST FIELDS AND WILDCATS

(Continued from Page 39)

RABBS RIDGE—FORT BEND COUNTY

Cullen & West and Gulf Prod. Co.'s No. 3 George, John Rabb Sur., 1,000 ft. due E of No. 2 ..... Drlg. sand 3,225 ft.
Cullen & West and Gulf Prod. Co.'s No. 1-A Lockwood & Sharp (D.D.), John Rabb Sur. ..... Temp. abnd. 4,807 ft.
Cullen & West and Gulf Prod. Co.'s No. 4-A Lockwood & Sharp, J. Rabb Sur., 550 ft. W of No. 2-A ..... Derrick.
Cullen & West and Gulf Prod. Co.'s No. 1-B Lockwood & Sharp, John Rabb Sur., 300 ft. N and 300 ft. W of NW cor. of George tract ..... Standing 4,925 ft.
Gulf Prod. Co.'s No. 2 Mary D. Booth Meyers, J. Rabb Sur., 600 ft. E of No. 1 in center of tract ..... Sand showing oil 5,064-83 ft.; cmtd. csg. to test.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 20 Cade, N. Fitzsimmons Sur., 161 ft. W of No. 16 and 146 ft. SW of No. 17..... Shut down 60 ft.
Yount Lee Oil Co.'s No. 24 Cade, 1,010 ft. from NE line and 1,250 ft. from NW line of N. Fitzsimmons Sur... Set 114 ft. of 5-in. screen 5,497 ft.; comp. flowing 1,700 bbls. fluid, 200 bbls. net oil; killed well to plug back.
Yount Lee Oil Co.'s No. 25 Cade, N. Fitzsimmons Sur., 100 ft. due W of No. 23 ..... Sand and shale showing oil 5,066-92 ft.; cmtd. 7-in. csg. 5,028 ft.; drld. plug.

DAMON MOUND—BRAZORIA COUNTY

Intercoastal Oil Co.'s No. 6 Wisdom (D.D.), A. Darst Sur., Blk. 51, 2,550 ft. from NE line and 1,150 ft. from NW line of 340-acre tract ..... Set 120 ft. screen 3,680 ft.; swabbed dry.

NASH—BRAZORIA COUNTY

Harrison & Abercrombie's No. 15 Nash (D.D.), Thos. Alsbury League ..... Drlg. shale 6,740 ft.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 4 Davis (D.D.), Kokernot Sur. ..... No report.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 128-A "B" ..... Derrick.
Rio Bravo Oil Co.'s No. 127-A "B" ..... Drlg. sticky shale 925 ft.

LOST LAKE—CHAMBERS COUNTY

Pure Oil Co.'s No. 14 Mayes, E. H. R. Wallis Sur., 650 ft. due E of No. 11 in line with No. 9 ..... Set 2 joints 7-in. screen 1,873 ft.; bailed and blew in estimated 2,000,000 ft. gas, 650 lbs. pressure, ¾-in. choke, through 9⅝-in. csg.

MARKHAM—MATAGORDA COUNTY

L. P. Emith et al's No. 1 Hudson, 750 ft. out of SE cor. Blk. 15, Henry Parker Sur. ..... Rig.

MOSS BLUFF—LIBERTY AND CHAMBERS COUNTY

Manning Trust Co.'s No. 2 Sergeant, Jas. McFaddin Sur... Cap rock 905 ft.; abandoned.
Manning Trust Co.'s No. 3 Sergeant, Jas. McFaddin Sur., 600 ft. from W line and 500 ft. from N line of Humble lease ..... Drlg. 600 ft.

REFUGIO—REFUGIO COUNTY

E. M. Jones' No. 1-B Mitchell (D.D.), 250 ft. NW of SE line and 250 ft. SW of Mission River ..... Pulling screen to deepen 5,441 ft.
Larco Gas Co.'s No. 4 Strauch heirs, 150 ft. from N line and 150 ft. from W line, Lot 6, Blk. 2..... Topped sand showing oil 3,686 ft.; cem. 6⅝-in. casing; standing.

SOUTH LOUISIANA FIELDS

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Shell Petroleum Corp.'s No. 2 Heyd, 225 ft. out of NE cor. of Sec. 13-9s-7w ..... Started drilling.
Shell Petroleum Corp.'s No. 1 Fontenot, Sec. 7-9s-6w, 450 ft. due E No. 2 Heyd ..... Rigging up.

JENNINGS—ACADIA PARISH

Phillippi & Artigues' No. 1 Valle (D.D.), 900 ft. S and 90 ft. E of NW cor. Sec. 47-9s-2w ..... Drlg. 1,940 ft.
Yount Lee Oil Co.'s No. 10 Housierre-Latrielle, 5,435 ft. E and 1,070 ft. N of SW cor., Sec. 47-9s-3w..... T.D. 8,655 ft.; hole heaved to 8,620 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 23 Watkins (W.O.), 2,495 ft. W. and 132 ft. N of SE cor., Sec. 13-12s-10w..... T.D. 2,844 ft.; set whipstock 2,573 ft.
Calcasieu Oil Co.'s No. 26 Watkins (W.O.), 1,199 ft. N and 1,343 ft. W of SE cor. of Sec. 13-12s-10w..... Standing 3,001 ft.
Calcasieu Oil Co.'s No. 31 Watkins, 1,402 ft. W and 1,120 ft. N of SE cor. of Sec. 13-12s-10w ..... Cap rock 3,184-98 ft.; standing.
The Texas Company's No. 8-B State, 1,375 ft. N and 600 ft. E of SE cor. of Sec. 13-12s-10w in Sec. 9.... Drlg. 3,240 ft.
Union Sulphur Co.'s No. 1 Gulf land (Humble lease), 284 ft. N, 30 ft. W of SE cor., Sec. 11-12s-10w..... Drlg. 4,220 ft.
Union Sulphur Co.'s No. 1 Gulf land (Pure Oil Co. lease), 1,420 ft. N, 400 ft. W of SE cor., Sec. 11-12s-10w ..... Drlg. 2,236 ft.
Yount Lee Oil Co.'s No. 44 State, 1,110 ft. N and 1,915 ft. W of SE cor., Sec. 13-12s-10w ..... Location.
Yount Lee Oil Co.'s No. 45 State, 1,220 ft. N and 810 ft. W of SE cor., Sec. 13-12s-10w ..... Location.

VINTON—CALCASIEU PARISH

Marrs McLean's No. 9 Gray (D.D.) ..... Salt 2,203-2,474 ft.; drlg. sidetracked hole 2,156 ft.

PORT BARRE—ST. LANDRY PARISH

Gulf Refining Co.'s No. 1 Wilson & Cockran, Sec. 4-6s-5e, 100 ft. out of middle SW cor. 502-acre tract... Rig.

STARKS—CALCASIEU PARISH

Gulf Refining Co.'s No. 29 Lutcher Moore, Sec. 19-9s-12w. Comp. pumping 20 bbls. net oil 1,137 ft.

SULPHUR —CALCASIEU PARISH

Union Sulphur Co.'s No. 722 fee (W.O.), Sec. 29-9s-10w... Sand 5,423-32 ft.; comp. flowing 1,500 bbls., 480 lbs. pressure, ¾-in. choke.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 5 Sweet Lake (D.D.), Sec. 12-13s-8w... Tested salt water 7,456 ft.; abnd.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Grant & Baker's No. 1 Chesley, W. C. White Sur., 150 ft. from NW line and 150 ft. from SW line of 26-acre tract (northeast of Raccoon Bend Field)..... Derrick.
O'Hara Oil & Gas Co.'s No. 1 Nellous, J. C. Cummings Hacienda Sur., 650 ft. N of No. 1 Schroeder in 18-acre tract, north edge Mill Creek ..... Derrick.
Pomacal & Boletka's No. 1 Schebajas, 329 ft. N, 78 deg. E of N cor. B. Dottery Sur., near center of SW line of S. F. Austin 4 League on west fork of Mill Creek.. Set 10-in. csg. 120 ft.; standing.

BRAZORIA COUNTY

W. D. Southerland's No. 1 C. W. Chapman, 294 ft. from S line and 104 ft. from E line of Lot 2, Andrew Robinson Sur. ..... Standing 1,514 ft.
The Texas Company's No. 2 Belcher, Harvey N. Little Sur., 1,728 ft. southeasterly from N cor. of S half of Sur., along NE line and thence 123 ft. at right angles ..... Drlg. sand and shale 4,963 ft.
United Oil Syndicate's No. 2 Levitt, John Peske Sur., 75 ft. NW of No. 1 ..... Location.

BURLESON COUNTY

Marek & Son's No. 3 A. Marek, N. McFaddin Sur., 1,068 ft. N and 225 ft. W of SE cor. of tract..... Standing 2,210 ft.
M. O. & T. Corp.'s No. 1 Rigers ..... Drlg. shale 2,025 ft.

FORT BEND COUNTY

Stone & Wyman's No. 1 Beard, H.&T.C. Sur. No. 118, 1,150 ft. from NW line and 1,892 ft. from NE line.... Drill stem stuck 975 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur., 280 ft. N Cobb & Rasmussen's No. 1 Dodd ..... Rig.
Rianjo Oil Co.'s No. 3 Cuthrell, Patrick B. O'Connor Sur., 150 ft. S, 10 degrees E of No. 2 ..... Shut down 1,140 ft.
Manolind Oil & Gas Co.'s No. 1 Mary Sullivan, A. Yeamens Sur., 998 ft. out of SE cor. of 713-acre tract.... Location.

HARRIS COUNTY

Givens & Daybault's No. 1 Lobit, David Middleton Sur., Blk. 19, Lobit Subd. ..... Hole heaved; T.D. 2,738 ft.
Hewitt & Shibe's No. 1 Dan Wise, W.C.R.R. Sur., Sec. 11, 100 ft. out of SE cor. 149.33-acr. tract ..... Abnd. in shale 4,530 ft.
Louisiana Oil & Dev. Co.'s No. 1 J. W. Wilson, W. Ritchie Sur. ..... Shut down 420 ft.
Shubert & Alexander's No. 1 Herman Hale, 1,055 varas E of NW cor. R. A. Hanks Sur., thence 790 varas S and thence 70 varas W 74 deg. ..... Shut down 2,720 ft.

JASPER COUNTY

Next Drlg. Co.'s No. 1 Flourney, B. F. Jones Sur., 900 ft. NW of Helmerich & Payne's No. 1 Flourney..... Drlg. sandy shale 3,695 ft.

JEFFERSON COUNTY

Brown et al's No. 1 M. O. Todd, 200 varas S and 58 varas E of NW cor. of Wm. Carr Sur. ..... Derrick.
John I. Pipkin and Elam's No. 1 Broussard, McGaffey Sur., 800 ft. from S line in center E and W of 205-acre tract ..... Drlg. 1,700 ft.
Texas Gulf Sulphur Co.'s No. 4 Thomas, Fannett, Wm. H. Smith Sur., 1,500 ft. S and 350 ft. W of NE cor. tract ..... Sulphur test.
Texas Gulf Sulphur Co.'s No. 5 Thomas Fannett, Wm. Smith Sur., 1,950 ft. W, 1,600 ft. S of NE cor. of Thomas' 446-acre tract ..... Abnd. sulphur test.
Westbury Oil Co.'s No. 4 West, 450 ft. W and 4,210 ft. S of NE cor. of T. D. Yoakum Sur. ..... Shut down in gumbo 600 ft.

LIBERTY COUNTY

Hamm et al's No. 1 Harvard, Davis Hill ..... Gumbo 1,015 ft.; shut down.
J. T. May et al's No. 1 Dunman, J. C. Martin League... Location.

MATAGORDA COUNTY

United North & South Oil Co.'s No. 1 Stoddard, J. C. Keller Sur., 150 ft. W and 545 ft. N of SE cor. Blk. 53, Buckeye Townsite ..... Drlg. sticky shale 7,317 ft.

MONTGOMERY COUNTY

Herman Heep et al's No. 1 Cartwright, 2,851.6 ft. southerly along W line from NW cor. of John O. Davis Sur. and thence 450 ft. E from said line..... Rig.
Pevehouse Oil Co.'s No. 1 Sealey, Jas. Pevehouse Sur., 1,575 ft. N of N line of Horton & Woodson's 1,562-acre tract and 2,226 ft. E of W line of H.&W. 1,870-acre tract ..... Drlg. shale 3,133 ft.

NEWTON COUNTY

R. T. Briscoe et al's No. 1-A Joe Inman, 1,950 ft. E and 500 ft. N of SW cor. J. M. Scott Sur. ..... Rig.

ORANGE COUNTY

Altex Oil Co.'s (Veteran Oil Co.) No. 1 Reed, A. Nelson Sur. No. 1, 500 ft. from N line and 250 ft. from E line of tract ..... T.D. 4,063 ft.; sidetracking 3,270 ft.
Crew Oil Co.'s No. 1-A Mansfield, 80 ft. E of No. 1..... Shut down 2,275 ft.

POLK COUNTY

Freeman et al's No. 2 Freeman ..... Shut down 3,162 ft.
T. B. Hoffer's No. 1 Saner-Ragly Lbr. Co., 300 ft. out of most northerly cor. of most easterly County School Land Abst. 271 ..... Shut down 1,517 ft.

REFUGIO COUNTY

Blanco Creek Oil Co.'s No. 1 Damaan, 150 ft. from N line and 150 ft. from W line of Blk. 14, Bonnie View Ranch Subd. ..... Shut down 4,627 ft.
J. C. Dixon's No. 1 Peck, 450 ft. S, 150 ft. E of NW cor. of S half of Sec. 24, Bonnie View Ranch Subd., Estaban Lopez Sur. ..... Cmtd. 12½-in. csg. 100 ft.; standing.
Humble Oil & Ref. Co.'s No. 2 O'Connor, John Keating Sur., 933 ft. N, 20 deg. E of No. 1 ..... Derrick.

SAN JACINTO COUNTY

R. P. Edwards' No. 1 J. R. Bennett, Cold Springs ..... Shut down 750 ft.

TRINITY COUNTY

Scientific Producers Co.'s No. 1 Thompson, I.&G.N. Sur. No. 47, 50 ft. out of NE cor. of H. K. Thompson 199-acre tract ..... Shut down 1,191 ft.

TYLER COUNTY

King Oil Co.'s No. 1 Caswell ..... Sand and shale showing oil 1,258 ft.; cem. 6-in. casing 1,218 ft.; standing.
Allied Pet. Co.'s (Texas Southern Pet. Co.) No. 3 Wilson, Mrs. E. Cherry Sur. No. 798, 1,500 varas from W line and 600 varas from N line ..... Shut down 5,025 ft.

VICTORIA COUNTY

Bunte et al's No. 1 Keeran, 3,714 ft. NE along railroad from SW line of Martin DeLeon Sur., and thence 1,600 ft. NW at right angles ..... Shut in gas well 5,191 ft.

WALKER COUNTY

Hart Oil Co.'s No. 1 Thompson Lbr. Co., Jose Ortega Sur., 1,265 ft. S, 1,876 ft. W of SW cor. of J. B. Gibson's 71-acre tract ..... Coring 1,956 ft.

WALLER COUNTY

McDaniel and associates' No. 1 Citizens State Bank, B.B.B.&C. Sur., C of 160-acre tract ..... No report.

SOUTH LOUISIANA

ASCENSION PARISH

McElroy Pet. Co.'s No. 2 Lacey, 150 ft. S, 150 ft. W of NE cor. of Sec. 29-10s-4e ..... Shut down 4,515 ft.

CALCASIEU PARISH

Crawford Doyle's No. 1 Johnson, Sec. 23-9s-13w..... Shut down 875 ft.
L. O. Davis' No. 1 Industrial, Sec. 29-9s-10w..... Standing 6,568 ft.
Hill Oil Co.'s No. 1 W. S. Vincent et al, 642 ft. W, 75 ft. N from SE cor., Sec. 25-10s-10w..... Rig.
Wilfred Lahay's No. 1 Jardell, Sec. 16-10s-12w..... Shut down 3,650 ft.
Success Oil Co.'s No. 1 Hewitt, 90 ft. out of SW cor., Sec. 11-9s-11w ..... Rig.

CAMERON PARISH

Brownie-Babbette Oil Co.'s No. 1 R. A. Moore, 562 ft. W, 50 ft. S of NE cor. E half SE of Sec. 18-12s-12w.. Derrick.

EVANGELINE PARISH

Emile LeDeau's No. 1 Vidrine, 260 ft. W and 350 ft. S of NE cor. of Sec. 47-3s-2e ..... Rig.

IBERIA PARISH

Jefferson Lake Oil Co.'s No. 27 Lake Peigneur, Sec. 58-12s-5e, midway between Nos. 24 and 25..... Sulphur test.
Jefferson Lake Oil Co.'s No. 28 Lake Peigneur, Sec. 58-12s-5e, 150 ft. W NW of No. 26 and 1,720 ft. SW No. 25 ..... Sulphur test.

IBERVILLE PARISH

Standard Oil Co.'s No. 2 Myrtle Grove-Wilbert, Bayou Choctaw, 2,040 ft. N and 600 ft. W of C of Sec. 52-9s-11e ..... Drlg. 1,120 ft.
Standard Oil Co.'s No. 2 Gay, Bayou Choctaw, 4,500 ft. N and 600 ft. E of SW cor. SE of Sec. 52-9s-11e..... Drlg. 4,338 ft.
Standard Oil Co.'s No. 7 Schwing, Bayou Blue, 1,359 ft. N and 1,856 ft. E of C of Sec. 74-9s-10w..... Drlg. 2,875 ft.

LA FOURCHE PARISH

State Prod. Co.'s No. 1-C Stark, 210 ft. S and 140 ft. E of NW cor. of Sec. 71-15s-15e ..... Abnd. sulphur test.
Pop Oil Co.'s No. 1 Esponge Vizier, Sec. 26-21s-22e, 78 ft. N, 289 ft. E of The Texas Company No. 4 L.L.&E. ..... Rig.
The Texas Company's No. 4 L.L.&E., Leesville, Sec. 26-21s-22e ..... Rig.

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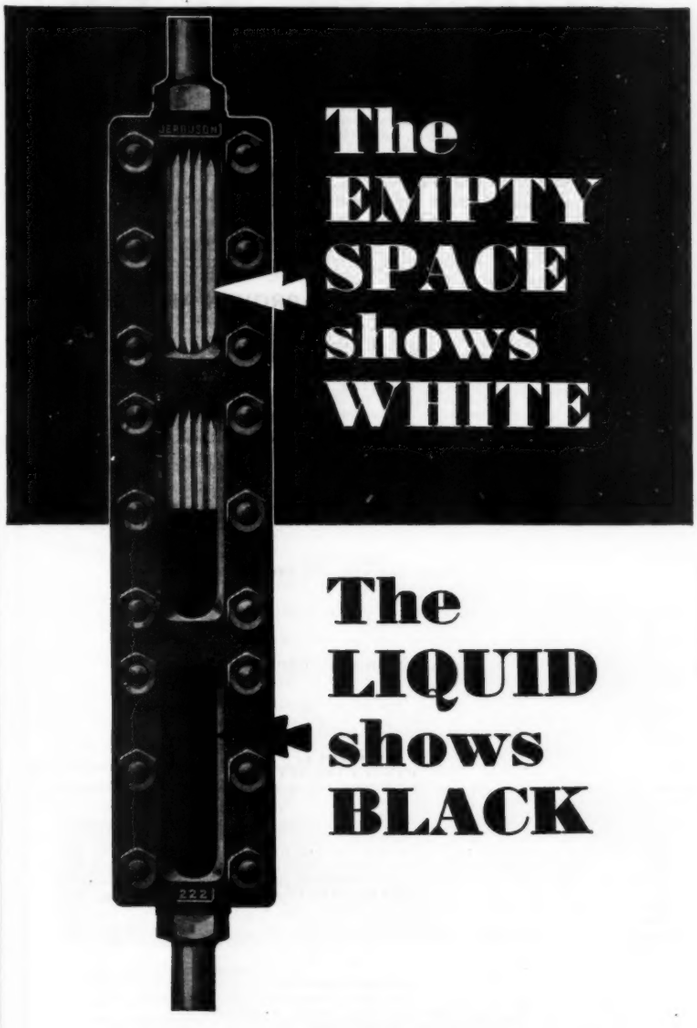

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PLAQUEMINES PARISH

Humble Oil & Ref. Co.'s No. 5 Cockrell-Moran, Lake Grand Ecaille, 10,377 ft. N and 3,614 ft. W of NE cor. of Twp. 21s-26e ..... Location.
Humble Oil & Ref. Co.'s No. 7 Cockrell-Moran, Sec. 14-20s-26e, 400 ft. S of No. 4 ..... Cap rock 1,174 ft.; cmtd. 9⅝-in. csg.

POINTE COUPEE PARISH

Grand Bay Oil & Gas Co.'s No. 1 Moniotte, 10,140 ft. S and 13,450 ft. E of NW cor. Twp. 5s-11 in Sec. 34.... Shut down 310 ft.

TERREBONNE PARISH

La. Gas & Fuel Co.'s No. 2 Minor, 3,480 ft. S and 1,980 ft. E of NW cor., Sec. 3-18s-16e ..... Drlg. shale 4,500 ft.
The Texas Company's No. 5 State, Dog Lake, 2,270 ft. S and 450 ft. E of NW cor. of Sec. 5-22s-16e ..... Bldg. derrick foundations.
The Texas Company's No. 4 La.L.&E., Bay Junop..... Location.
The Texas Company's No. 5 State, Lake Pelto, 1,505 ft. N and 1,539 ft. W of SE cor. of Sec. 8-23s-18e..... Cap rock 1,683-94 ft.; cmtd. 9⅝-in. csg. 1,685 ft.
The Texas Company's No. 10 State, Lake Barre..... Location.
The Texas Company's No. 12 State, Lake Barre..... Location.
The Texas Company's No. 14 State, Lake Barre..... Location.
The Texas Company's No. 1 La.L.&E., Lake Barre, 2,645 ft. S and 596 ft. E of NW cor. Sec. 30-21s-20e ..... Set 4 joints screen 3,763 ft.; comp. flowing 875 bbls., 1-in. choke.

VERMILLION PARISH

Pure Oil Co.'s No. 2 Alliance Trust Co. Gueydan, 1,875 ft. E and 950 ft. S of NW cor. of Sec. 34-11-1w.. Gumbo 2,290 ft.; cmtd. 13⅜-in. csg. 2,274 ft.

WEST FELICIANA PARISH

Putnam Syndicate's No. 3 Como Plantation, Sec. 51-1s-4w. No report.

LOUISIANA-ARKANSAS PROVEN AREAS

(Continued from Page 36)

O. A. Gautier et al's No. 1 Mischell, 330 ft. E, 150 ft. N, SW cor. SE NW, Sec. 30-8-12 ..... S.D; W.O. 2,599 ft.
Hawkins & Antoon's No. 1 Newton, Sec. 1-7-11 ..... W.O.S.R. 2,609 ft.
Hudson & Bird's No. 1 Walden, 480 ft. N, 300 ft. E, SW cor. SW NE, Sec. 26-8-11 ..... S.D. 2,454 ft.
Zeke Lohman's No. 1 McCormick, 660 ft. E, 330 ft. N, SW cor. NE SW, Sec. 2-7-11 ..... S.D. 1,606 ft.
Loring Oil Co.'s No. 18 Bowman-Hicks, 1,280 ft. S, 275 ft. E, NW cor. SW NW, Sec. 15-7-12 ..... Waiting on cmt. to set; T.D. 4,428 ft.
Ben Merritt, tr.'s No. 2 Byrd, Sec. 1-7-11 ..... S.D.; W.O. 2,579 ft.
Ohio Oil Co.'s No. 14 Bowman-Hicks, Sec. 3-7-12, 330 ft. S and W, NE cor. NW SW ..... Set 10-in. 129 ft; drlg. 250 ft.
Eddie Self's No. 3 Jacobs, Sec. 1-7-11, 150 ft. N and E, SW cor. SE SE ..... Set 6-in. 2,420 ft.

ARKANSAS
UNION COUNTY—EL DORADO

Ark. O. & G. Co.'s No. 4 Anderson, Sec. 31-17-15, 2,005 ft. S, 150 ft. W, NE cor. NW SW ..... Testing 3,190 ft.
Lion O. & R. Co.'s No. 9-A G. P. Hayes, 242 ft. S, 246 ft. W, NE cor. Lot 5, NE, Sec. 4-16-15 ..... S.D. high wtr.; 7,255 ft.
Southern Prod. Co.'s No. 1 Wingfield, NE cor. SE NW, Sec. 16-19-15 ..... S.D. 2,608 ft.

UNION COUNTY—URBANA

Marine Oil Co.'s No. 1 Winn est., 330 ft. S and E, NE cor. S½ NW, Sec. 11-18-12 ..... T.A. 3,586 ft.
Marine Oil Co.'s No. 2-E Thompson, 330 ft. N, 330 ft. E, SW cor. NE NE, Sec. 10-18-13 ..... Location.
Wilson & Chapman's No. 1-B Hadley, Sec. 3-18-13, 330 ft. S and W, NE cor. SE NW ..... Recmtng. 6-in. 3,545 ft.

EAST TEXAS
PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ..... S.D. 3,194 ft.
Nat. Gas Prod. Co.'s No. 3 Mays, 158 ft. S, 443 ft. W, NE cor. 42.5-ac. tr., Jane Thorpe Sur. ..... S.D. 3,038 ft; high wtr.
United Prod. Co.'s No. 12 Werner, 1,959 ft. W, 556 ft. N, SE cor. 66.6-ac. tr., B. C. Jordan Sur. ..... Location.
United Prod. Corp.'s No. 17 Steele, 1,320 ft. N, 660 ft. W, SE cor. C. D. Steele lse., in B. C. Jordan Sur. ... Location.

MISSISSIPPI
HINDS COUNTY

James Alexander, tr.'s No. 1 Fuller, Sec. 26-6n-1e, C NW NE ..... Location.
Ferguson-Fuller et al's No. 1 Cruse, Sec. 34-6n-1e, 420 ft. E, 170 ft. N, SW cor. NW ..... Derrick pattern.
Love Pet. Co.'s No. 1 Interior Lbr. Co., Sec. 2-5n-1e, 90 ft. W, 270 ft. N, SE cor. SW ..... Derrick.

RANKIN COUNTY

Cummins & Montgomery's No. 1 Ivey, Sec. 13-5n-1e, NE Lot 10, Blk. D, E. Jackson Pl., First Addn. ... Derrick.
Meredith et al's No. 1 Strowder, Sec. 12-5n-1e, SE cor. SW NE ..... Derrick.

WILDCAT OPERATIONS IN MISSISSIPPI

HINDS COUNTY

Company, farm and location—	Remarks:
Atkins et al's No. 1 Crane Lawrence, Sec. 23-6n-1e, 300 ft. E, 132 ft. N, SW cor. NE SE	Derrick.
Consumers O. & G. Co.'s No. 1 Interior Lbr. Co., 805 ft. E, 205 ft. N, SW cor., Sec. 1-5n-1e	Completed; estimated 35,000,000 ft. gas 2,411 ft.
Miss.-Minn. Oil Co.'s No. 1 Edwards Land Co., Sec. 23-6n-4w, 1,200 ft. N and E from center of Sec.	Derrick.
Roell O. & G. Co.'s No. 1 Dreyfuss, 650 ft. N, 480 ft. W, SE cor. NE, Sec. 4-5n-1e	Completed; estimated 30,000,000 ft. gas 2,456 ft.
Southern Pet. Co.'s No. 1 Wilton (was Tri-State O. & G. Co.'s), 320 ft. E, 240 ft. N, SW cor. SE NE, Sec. 28-6-1e	Waiting orders 2,498 ft.

JASPER COUNTY

Bay Springs Pet. Co.'s No. 1 Keyes, C NW NE, Sec. 2-12-9 ..... S.D. for fuel 3,139 ft.

LOWNDES COUNTY

Lowndes County Oil & Dev. Co.'s No. 1 Carr est., Sec. 34-17-16e, 1,320 ft. E, 330 ft. S, NW cor. Sec. ..... Rig on location.

MONROE COUNTY

Amory Dev. Co.'s No. 1 Bourland, Sec. 2-13-19 ..... S.D. 3,015 ft.
McAlpine et al's No. 1 Cowart, second hole, Sec. 2-12-19. T.A. 3,793 ft.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE, Sec. 25-6n-11e ..... S.D. 840 ft.

NOXUBEE COUNTY

Thompson & Donohoue's No. 1 Donohue, Sec. 25-16n-17e. S.D. 1,735 ft.

RANKIN COUNTY

Attkisson & Dyer's No. 1 Valentour, 200 ft. S, 200 ft. E, NW cor., Sec. 18-5n-2e ..... Waiting on csg. 2,428 ft.
James Alexander, tr's No. 1 Taylor & Watkins, Sec. 1-5n-1e, 175 ft. N, 75 ft. W, SE cor. ..... Set 10-in. 90 ft; drlg. 205 ft.
Henslee et al's No. 1 Tanner, Sec. 14-5n-1e, 400 ft. S, 200 ft. E, NW cor. NE NE ..... Rig on location.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e. Derrick.
Muse & Muse's No. 1 Cotton, Sec. 14-5n-1e, 1,320 ft. S, 200 ft. E, NW cor. NE NW ..... Moving in rig.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-8-9 ..... Derrick.

SHARKEY COUNTY

United Gas Public Service Co.'s No. 1 Lenhart, Sec. 14-14n-6w, 660 ft. N of C of S line of Sec. ..... Rigging up.

WARREN COUNTY

Eagle Bend O. & G. Co.'s No. 1 Kiger, SW cor. SW SE, Sec. 9-18-2 ..... S.D. 2,607 ft.

WILDCAT OPERATIONS IN LOUISIANA-ARKANSAS

(Continued from Page 36)

MOREHOUSE PARISH

United Gas Public Service Co.'s No. 2 Sandidge, Sec. 11-20n-4e, 656 ft. S, 1,332 ft. W, NE cor. NW ..... S.D.; high wtr.; 2,132 ft.

NATCHITOCHES PARISH

Dr. H. S. Gerson's No. 1 Smith, Sec. 11-10-8, 2,000 ft. N, NE cor. of irregular Sec. 10, in Sec. 11 ..... S.D. 585 ft.
Dr. H. S. Gerson's No. 2 Smith, Sec. 11-10-8, 200 ft. N and 300 ft. W of NE cor. ..... Location.
Cooper et al's No. 2-A Cooper, C SE SE, Sec. 32-11-10.. S.D. 1,518 ft.
R. A. Keaton's No. 1 Stephens, Sec. 25-10-6, 320 ft. N and W, SE cor. NW NW ..... S.D. 178 ft.
C. M. Talley et al's No. 1 C. M. Talley, 1,980 ft. W, 660 ft. S, NE cor. SE, Sec. 29-11-10 ..... S.D. 1,380 ft.

OUACHITA PARISH

J. J. Potts, agent's No. 1 Robinson-Reed, Sec. 11-18-4e, 1,745 ft. N, 780 ft. E, SW cor. Sec. ..... Rigged up and S.D.; high wtr.
United Gas Public Service Co.'s No. 1 Wiley, Sec. 8-18-5, 660 ft. S and E, NW cor. ..... Dry and abd. 2,616 ft.
Wilson & Mitchell's No. 1 Williams, Sec. 5-16-1e, 330 ft. E, 240 ft. S, NW cor. SW SE ..... Drlg. 1,890 ft.

RED RIVER PARISH

La. Oil Dev. Co.'s No. 2 La. Delta Pecan Co., 2,950 ft. S, 300 ft. E, NW cor., Sec. 27-13-11 ..... Spudded and S.D. 50 ft.

RICHLAND PARISH

National Gas Co.'s No. 1 Singletary, 1,980 ft. N, 660 ft. W, SE cor., Sec. 20-18n-7e ..... S.D. 2,515 ft.

SABINE PARISH

Abney & Davidson's No. 1 Frank Martinez, 330 ft. S and W, NE cor. NW, Sec. 11-7-13 ..... Drlg. 275 ft.
Baird & Stone's No. 1 McNeely, Sec. 14-7-11 ..... Derrick.
Beene et al's No. 1 Eszernack, Sec. 2-7-13, 1,070 ft. S, 250 ft. W, NE cor. ..... S.D. 1,200 ft; high wtr.
Coates Pet. Co.'s No. 1 Parie, Sec. 3-7-13, 300 ft. S and W, NE cor. NE SE ..... Set 4½-in. 2,071 ft.
Coates Pet. Co.'s No. 1-B S. S. Martinez, Sec. 3-7-13, 330 ft. S and W, NE cor. SE NE ..... Location.
W. M. Coates' No. 1 Stille, 330 ft. N, 660 ft. W, SE cor., Sec. 35-8-13 ..... Derrick.
W. M. Coates et al's No. 1 Mansfield Hardwood Lbr. Co., Sec. 36-8-13, SW cor. SE SE ..... Set 10-in. 100 ft; drlg. 250 ft.
B. A. Ferrell's No. 1 Haley, Sec. 6-7-12, 300 ft. S and E, NW cor. NW SW ..... Location.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW, Sec. 10-8-13 ..... Coring lime 4,623 ft.
W. F. Lacey's No. 1 McNeely, Sec. 14-7-11, 250 ft. S and W, NE cor. Sec. ..... Completed; 600 bbls. at 2,468 ft.
T. M. LeGrand's No. 1 Peterson, 330 ft. N and E of C, Sec. 34-7-13 ..... S.D. 2,243 ft.
Geo. LeGrand's No. 1 McGough, Sec. 3-8-10 ..... Derrick.
Loring Oil Co.'s No. 20 Bowman-Hicks, Sec. 4-7-12, 330 ft. S and W, NE cor. NW NW ..... S.W. and abd. 2,595 ft.
J. J. Keen, tr.'s No. 1 Belton (no checks), Sec. 31-9-13 .. S.D. high wtr. 2,700 ft.
E. F. Neely's No. 1 Cobb & Alford, Sec. 14-7-11, 200 ft. S, 100 ft. E, NW cor. NE SW ..... Location.
Pelican Nat. Gas Co.'s No. 1 Buckley, Sec. 6-7-10, 330 ft. N and E, SW cor. Sec. ..... Tested dry 2,554 ft; arranging to deepen.
Ruston Drlg. Co.'s No. 1 McGehee, Sec. 28-8-12, 330 ft. N and W, SE cor. SW SW ..... Dry and abd. 2,523 ft.
Service Drlg. & Royalties Corp.'s No. 1-B Gardner, Sec. 7-7-10, 330 ft. S and E, NW cor. SW NW ..... Drlg. 2,512 ft.
J. E. Smitherman's No. 1 Smith, Sec. 7-7-10, 330 ft. S and E, NW cor. NW SW ..... Pumping cmt. in cavity 1,250 ft. T.D. 1,850 ft.
Southland Drlg. Co.'s No. 2 F. Martinez, Sec. 11-7-13, 330 ft. S and E, NW cor. NE NW ..... Location.
Southland Drlg. Co.'s No. 1 Gilbert Martinez, Sec. 2-7-13, 330 ft. N and W, SE cor. SW SW ..... Derrick pattern.
Southland Drlg. Co.'s No. 1 C. E. Patterson, Sec. 2-7-13, 330 ft. N and E, SW cor. Sec. ..... Location.
A. H. Thames' No. 1 Edward est., 150 ft. NW SE cor. NE SE, Sec. 8-8-13 ..... S.D. 1,200 ft.
C. H. Tuttle et al's No. 1 Byrd, Sec. 7-7-10, 330 ft. S and E, NW cor. ..... Drlg. 2,300 ft.

TENSAS PARISH

A. R. Willis et al's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor., Sec. 39-11-12 ..... S.D. 3,545 ft.

ARKANSAS
COLUMBIA COUNTY

Kendall Oil Co.'s No. 1 Fullenweider, Rhea & Kitchen, Sec. 13-17-22 ..... S.D.; W.O. 814 ft.

CLAY COUNTY

S. C. Jeffus' No. 1 Underwood, 510 ft. N, 350 ft. W, C. NW SE, Sec. 4-20-8 ..... S.D. 1,350 ft.

CLEVELAND COUNTY

Crum & Stillwell's No. 1 E. R. Bell, Sec. 10-10s-12 ..... Rigged up and S.D.

CLEBURNE COUNTY
(Cable tools)

Donnelly-Craver et al's No. 1 Donophan Lbr. Co., SE cor. NW, Sec. 33-11-9 ..... S.D. 3,740 ft.

DALLAS COUNTY

J. H. James, tr.'s No. 1 Fordyce Lbr. Co., 200 ft. S, 200 ft. E, NW cor. SE, Sec. 11-9-15 ..... Arranging to resume drlg. at 1,514 ft.
Zepp O. & G. Co.'s No. 2 Hillman, Sec. 20-10-13, 180 ft. N, 450 ft. E, SW cor. NW NE ..... Location.

DREW COUNTY

Co-Operative Dev. Co.'s No. 1 Ogles, Sec. 35-15-5, 330 ft. S and E, NW cor. NE NW ..... S.D. 1,890 ft.

HOT SPRINGS COUNTY

Star Oil Co.'s No. 1 Cunningham, 285 ft. S, 285 ft. W, NE cor., Sec. 11-5-16 ..... S.D. 1,300 ft.

LINCOLN COUNTY

Lawrence Cook, tr.'s No. 1 McGhee Planting Co., 420 ft. S, 200 ft. W, NE cor. NE SW, Sec. 5-8-7 ..... S.D. 2,800 ft.

LITTLE RIVER COUNTY

Roberts Oil Co.'s No. 1 H. J. Russell, 330 ft. E, 330 ft. S, NW cor., Sec. 25-12-19 ..... Location.
Stephens et al's No. 1 Dierke Lbr. Co., Sec. 29-12s-21w, 150 ft. S, 330 ft. E, NW cor. NE NW ..... S.W. and abd. 2,939 ft.

LOGAN COUNTY

J. H. Flowers' No. 1 J. H. White, Sec. 13-6-26 ..... S.D.; W.O. 3,570 ft.

MILLER COUNTY

W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor., Sec. 11-20-27 ..... S.D. 1,955 ft.

OUACHITA COUNTY

Copenhaven et al's No. 2 Berg, C SE SE, Sec. 13-15-17.. S.D. 2,011 ft.

PIKE COUNTY

E. R. Henderson's No. 1 Tilyou, 660 ft. W, 500 ft. S, NE cor. NE SE, Sec. 26-8-14 ..... T.A. 2,909 ft.
E. R. Henderson's No. 1 J. L. Lee, 400 ft. S, 350 ft. E, NW cor. SW SE, Sec. 31-8-24 ..... S.D.; W.O. 1,020 ft.
E. R. Henderson's No. 1 W. B. East, 200 ft. S, 150 ft. W, NE cor., Sec. 13-9-23 ..... S.D. 338 ft.

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PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW, Sec. 3-4n-6w ..... Partly rigged up and S.D.

SCOTT COUNTY

Heavener O. & G. Co.'s No. 1 Riser, Sec. 36-4-26 ..... S.D.; T.D. 1,436 ft.
Waldron O. & G. Co.'s No. 1 White, NE cor. SW NW, Sec. 17-3n-29 ..... S.D. 1,860 ft.

SEVIER COUNTY

Tristate Oil Co.'s No. 1 Grimble, Sec. 34-8-32, S½ SW .. S.D. 950 ft.

UNION COUNTY

Drillers Oil & Dev. Co.'s No. 1 Pickering, 220 ft. N, 668 ft. E, SW cor. NW NE, Sec. 1-17-16 ..... W.O.S.R. 2,134 ft.
H. H. Helms' No. 1 C. H. Murphy, NE cor. NW NE, Sec. 31-16-14 ..... Coring 2,040 ft.
L. M. Hill et al's No. 1 J. W. Barnes, Sec. 21-19-16, NE cor. Sec. ..... Derrick.
Sunby et al's No. 2 Perdue, Sec. 33-16-14, 75 ft. S, 150 ft. E, NW cor. Sec. ..... W.O. 3,247 ft.
Wilson & Chapman's No. 1 King, Sec. 3-18-13, 330 ft. N and E, SW cor. NE NE ..... Derrick.
Wilson & Chapman's No. 1 K. D. Parker, Sec. 3-18-13, 330 ft. N and E, SW cor. S½ NE SE ..... Moving in rig.

WASHINGTON COUNTY
(Cable tools)

C. H. Willoughby's No. 1 Jones, Sec. 34-16-30 ..... S.D. for funds 1,795 ft.

YELL COUNTY
(Cable tools)

Tegmeir & Luckett's No. 1 Falcon, Sec. 36-7-21 ..... S.D. 5,710 ft.

EAST TEXAS

BOWIE COUNTY

Logan & Elliott's No. 1 Smith, 3,600 ft. S, 2,500 ft. W, NE cor. Chas. Lewis Sur. ..... S.D. 4,505 ft.
Tarkington & Jones' No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 1,880 ft.
Lee Timberlake et al's No. 2 Tidwell, 2,510 ft. N, 655 ft. W, SE cor. T. M. Rice Sur. ..... S.D. 3,000 ft.

CAMP COUNTY

McDonald Bros.' No. 1 Tillery, 150 ft. E, 450 ft. S, NW cor. 127-ac. tr. in J. H. Murphy Sur. ..... Abd. 3,000 ft.

CASS COUNTY

J. F. Morrisey's No. 1 T. J. Wilson, 1,088 ft. S of N line, 2,376 ft. E of W line of H.R.S., J. R. McFarland Sur. ..... S.D. 3,670 ft.
Davis & Pigg's No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Lattimer Sur. ..... S.D. 2,860 ft.
William S. King's No. 1 D. W. McDonald, Martha Ingram Sur., 688 ft. W, 1,343 ft. N, SE cor. Lot 5, McDonald 61-ac. tr. ..... Rigging up.
C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.
John C. Rogers' No. 1 I. E. Lanier, 573 ft. N, 879 ft. W, SE cor. Lanier 86 ac. in K. E. Welborn Sur. .... S.D. 2,280 ft.
Olds & King's No. 2 Anthony, John C. Byers Sur. ..... S.D. 1,750 ft.
John C. Rogers et al's No. 1 W. Q. Henderson, 3,100 ft. S, 3,100 ft. E, NW cor., Wm. Davis Sur. ..... S.D. 955 ft.

HARRISON COUNTY

Lloyd Oil Corp.'s No. 1 E. S. Timmons, 150 ft. from N line to 250 ft. from E line of 105-ac. tr., Findley Sur. ..... S.D. 4,195 ft.
Ryan Cons. Pet. Corp.'s No. 1 J. M. Fuhr, 1,300 ft. N of NW cor. T. J. Copelin Sur., 1,675 ft. SW at right angles to NW SE line of O'Neal Sur. ..... Derrick.

MARION COUNTY

Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S, most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D. 2,380 ft.

PANOLA COUNTY

Hoffer et al's No. 1 Cameron Lbr. Co., center 1,306-ac. tr. in W. M. A. LaGrove Sur. ..... Derrick.
Moses & Wallace's No. 1 Daniel, 600 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur. .. Spudded and S.D.
G. A. Davidson's No. 1 Latham, Wm. Rich Sur. ..... S.D. 2,394
J. L. Nelson et al's No. 1 J. W. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr. in James Hanks Sur. ..... S.D. 3,055 ft.
United Gas Public Service Co.'s No. 11 Werner, 1,162 ft. N, 2,418 ft. W, SE cor. D. B. Lewis Sur. ..... Completed for 1,500,000 ft. gas at 3,665 ft.

RED RIVER COUNTY

D. M. Buffington's No. 1 Hossler, E. Hughhart Sur. .... S.D. 2,795 ft.
Johnson Pet. Co.'s No. 2 Randolph, Edw. Dean Sur. .... S.D. 2,280 ft.

SHELBY COUNTY

Chapperell Oil Co.'s No. 2 Holt, Matthew Moore Sur. .... S.D. 1,028 ft.
Harry Elliott's No. 1 Pickering Lbr. Co., 1,000 ft. N, 150 ft. E, SW cor. 361-ac. tr., G. H. Patterson Sur. .. Setting 6-in. 1,487 ft; T.D. 1,495 ft.
K. H. Francis' No. 1 John Mims, Mary Smith Sur. ..... S.D. 3,334 ft.
H. H. Gracey's No. 1 J. A. Morrison, 1,500 ft. N, 200 ft. E, SW cor. J. A. Morris' 109-ac. tr., Wm. English Sur. ..... S.D. 2,600 ft.
Henry Maulding's No. 1 Frost Lbr. Co., NE cor. Frost Lbr. Co.'s 80-ac. tr., A. D. Fountain Sur. ..... S.D. 3,246 ft.
McRoby et al's No. 1 Windham, Wm. Leach Sur., on Windham 296-ac. tr. ..... S.D. high wtr. 3,393 ft.
Ridgeway et al's No. 1 Polley, Domingues Gonzales Sur., 3,180 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tr. ..... Set 8-in. 822 ft.
C. H. Tautenhahn's No. 1 J. C. Bogard, 300 ft. S, 900 ft. E, NW cor. J. C. Bogard's 52-ac. tr., Thomas Baker Sur. ..... S.D. 20 ft.
Tenant et al's No. 1 J. Henry, C. Z. Walker Sur. ..... S.D. 3,457 ft.
United North & South Prod. Co.'s No. 1 Windham, 800 ft. W, 1,050 ft. N, SE cor. of Windham 171.5-ac. tr. on A. H. English Sur. ..... Dry and abd. 3,391 ft. (corrected).

WILDCAT OPERATIONS IN SOUTHWEST TEXAS

(Continued from Page 40)

W. A. Klecka's No. 1 W. W. Thornton, 500 ft. from N line, 1,068 ft. from E line of tract in R. Roberts Sur. ..... Location.
J. W. Riley's No. 1 W. S. Chaffin, in M. Griffin Sur. ..... T.D. 365 ft.; S.D.
Jas. Scroggins' No. 2 Warrick, Ingram Sur. ..... T.D. 1,432 ft.; S.D.

BEE COUNTY

Alexander et al's No. 1 McFall, 3 miles S Skidmore ..... T.D. 2,100 ft.; standing.
Coastal Oil Finding Co.'s No. 1 Handley ..... Making location.
Humble O. & R. Co.'s No. 1 Laura Thompson, 6,360 ft. from N line, 15,100 ft. from W line of tr. in Garrett Roache Sur., S part of county ..... T.D. 5,310 ft.; S.D.

BEXAR COUNTY

Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio ..... T.D. 500 ft.; drlg.
Alamo Natural Gas Co.'s No. 2 Gembler, 1,000 ft. S of No. 1 in A. Manchaco Sur. No. 51 ..... T.D. 700 ft.; comp. small gas well.
J. E. Anderson's No. 1 Suburban Irrigated Farms, 500 ft. to N line, 600 ft. to E line of C. Logan Sur. ..... T.D. 1,773 ft.; S.D.
Eckert et al's No. 1 Edwards, 150 ft. to N and W lines of farm in Martinez Sur. ..... T.D. 1,400 ft.; drlg.
Callahan Final Oil Co.'s No. 1 B. H. Buck, 900 ft. to E line, 3,200 ft. to S line of farm, in J. M. McGamley Sur. ..... T.D. 650 ft.; drlg.
Dr. Ewell Neil's No. 1 J. Watson, 500 ft. from W line, 1,700 ft. from S line of B. Martinez Sur. ..... T.D. 3,338 ft.; bailing sulphur wtr.
Jones & Voltz' No. 6 Bonkowsky ..... T.D. 650 ft.; drlg.
O. K. Oil Co.'s No. 1 Strum, 150 ft. S of N line, 150 ft. W of E line, John Grant Sur. ..... Drlg.
O. K. Oil Co.'s No. 2 Strum, 150 ft. from S line, 1,051 ft. W of E line, Juan Mantes Sur. ..... Drlg.
Schneider, Rees et al's No. 2 Claussen, 12 miles NE of San Antonio ..... T.D. 1,150 ft.; S.D.
W. R. Swearingen et al's No. 7 Halberdier, 150 ft. W of E line, 540 ft. S of N line, J. M. Perez Sur. ..... T.D. 800 ft.; drlg.
Tri-State Oil Co.'s No. 1 E. B. Carruth, 2,500 ft. from S line, 2,560 ft. from E line of tr. in F. Bolen Sur. ... T.D. 780 ft.; dropped from report.
S. W. Blount's No. 1 S. A. Land Co., I. Perez Sur., 1,000 ft. to N line, 450 ft. to W line of tract ..... T.D. 520 ft.; S. D.
Van Duyn et al's No. 1 Bradden, 5,000 ft. N of Medina River, 350 ft. to E line of tract, 8 miles W of San Antonio ..... T.D. 785 ft.; drlg.

CALDWELL COUNTY

Cole & Moseley's No. 1 Pierce, 150 ft. to NW and SW lines of tract, Solomon Seal Sur. ..... T.D. 500 ft.; S.D.
Kistler, Stivers & Hendrix's No. 1 D. Carter, 400 ft. from NW line of Sur., 300 ft. NE of Creek in I. Allen Sur. ..... Rigging up.
Meyer's No. 1 G. C. and W. Walker, Solomon Seal Sur. .. Spudded in.
M. O. Rayor's No. 3 N. L. Dunlop, 350 ft. to NW line, 150 ft. to NE line of farm, Solomon Seal Sur. ..... T.D. 2,503 ft.; plugged back to [illegible] Buda.

DUVAL COUNTY

Frank Gravis et al's No. 2 Schallert, 425 ft. to E line, 150 ft. to S line of Blk. 16, Cain & Smith Subd. "A", Sur. No. 255 ..... T.D. 1,430 ft.; drlg.
O. W. Killam's No. 1 Sutherland, Sur. No. 7, 3,200 ft. to E line, 150 ft. to N line ..... T.D. 2,380 ft.; drlg.
O. W. Killam's No. 1 Peters, 150 ft. from E line, 450 ft. from N line of SE of Sur. No. 1 ..... Rigged up.
R. A. Thompson's No. 1 Parr, 2,640 ft to W line, 12,160 ft. to S line of San Andres grant ..... T.D. 2,150 ft.; drlg.
Vacuum Oil Co.'s No. 1 Duval Land Co., 280 ft. from S and E lines of Sur. 96 ..... T.D. 1,827 ft.; set csg.

FRIO COUNTY

A. H. Wray's No. 1 Roche, 320 ft. from N and W lines of NW SE Sec. 123, A. Hutzler Sur. ..... T.D. 3,707 ft.; abnd.

GUADALUPE COUNTY

Barnhill et al's No. 1 H. L. Hoffman, 450 ft. to N and W lines of farm, in John G. King Sur. ..... T.D. 850 ft.; S.D.
M. W. Elser's No. 1 Wells, 2,790 ft. to W line, 150 ft. to S line of farm in Jose de la Baume Sur. ..... T.D. 3,863 ft.; dry and aband.

GOLIAD COUNTY

Camp & Stanolind's No. 3 Pettus, 2,438 ft. N, 74 deg. E of No. 2 ..... T.D. 4,492 ft.; drlg.
Plymouth Oil Co.'s No. 1 Parks, 5 miles NE Goliad ..... T.D. 4,625 ft.; waiting on orders.
Neal et al's No. 1 J. M. Pettus, 10,700 ft. to S line, 2,500 ft. to E line of Pedro Trevino Sur. ..... T.D. 3,988 ft.; preparing to resume.

GONZALES COUNTY

Crowder Oil Co.'s No. 1 Preston, 1,000 ft. from W line, 2,000 ft. from N line of W. W. Pace Sur. ..... Spudded in and S.D.
Johnson & Mattock's No. 1 J. James, 12 miles NE of Gonzales city, 900 varas from E line, 300 ft. from S line of tract in M. A. Williams Sur. ..... Location.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 875 ft.; drlg.
LaJoya Oil & Gas Co.'s No. 1 W. L. Hart, 6 miles W from Mission, north of San Fordyce ..... T.D. 1,600 ft.; drlg.
Dayle L. Smith's No. 1, 18 miles W from Edinburg ..... T.D. 4,026 ft.; standing, showing gas.
San Roman Oil Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... Location.
Dayle L. Smith's No. 3 Daskam, SW part of county ..... Spudded in.

JIM HOGG COUNTY

L. W. Connor's No. 1 Holbien, 150 ft. from N and E lines of Blk. 7, Sur. 7, Holbien Subd. of Las Animas grant ..... T.D. 950 ft.; drlg.
R. F. Force's No. 1 Holbien, 150 ft. from N and W lines of Blk. 54, Sur. 9, Holbien Subd. of Las Animas grant ..... T.D. 2,501 ft.; abnd.
O. W. Killam's No. 1 Hinnant, 150 ft. N of NE cor. of Sur. 84 and in Sur. 614 ..... T.D. 1,765 ft.; drlg.
T. P. Morgan's No. 1 fee, 2,323 ft. to N line, 1,640 ft. to E line of Share 19, Palo Blanco grant ..... T.D. 620 ft.; S.D. to drill wtr. well.

JIM WELLS COUNTY

Gulf Prod. Co.'s No. 5 Shaeffer, SE cor. of Sur. No. 89 ... T.D. 2,457 ft.; gas blowout.
Vacuum Oil Co.'s No. 1 Seeligson, 4,500 ft. to W line, 75,000 ft. to S line of Los Jaboncillos Sur. ..... T.D. 3,422 ft.; set csg. to test.

KARNES COUNTY

A. E. Edmiston's No. 1 O. L. Cochran, 150 ft. from S line, 500 ft. from E line of farm in D. B. McConnell Sur. ..... T.D. 1,800 ft.; standing.
V. F. Neuhaus' No. 1 Della B. Tips, 1,050 ft. from SE line, 950 ft. from SW line of 1,037.5 ac., Carlos Martinez Sur., 5 miles SE of Kennedy ..... T.D. 3,518 ft.; coring.

KENDALL COUNTY

Dixon Oil Co.'s No. 1 Ottmar Behr, 823 ft. from S and N lines of Jessie Wilson Sur., 3 miles S of Sisterdale ..... T.D. 2,708 ft.; standing.
Fred S. Dibble's No. 1 Ellebrach, Sur. 77, N part of county ..... T.D. 50 ft.; S.D.

KERR COUNTY

George Ball's No. 1 F. A. Karger, near Kerrville ..... Rig on ground.
Evans & Gant's No. 1 E. Young, A. E. Burge Sur. No. 28. T.D. 1,312 ft.; standing.
Evans & Gant's No. 2 Love, 150 ft. S and W line of Sur. 1,593 ..... T.D. 5,849 ft.; pulling csg. to deepen.
Verde Oil & Gas Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923, Hamilton Sur., 4 miles S from Center Point. T.D. 200 ft. Carried to this depth and abandoned as Herber Oil Co.'s No. 1 J. D. Witt ..... Rigging up to deepen to 4,500 ft.

LIVE OAK COUNTY

J. A. Harper's No. 1 fee, 2,130 ft. to N line, 510 ft. to E line of farm, J. Pointevant Sur. No. 37 ..... Spudded in.
Henderson Coquat's No. 1 Hewitt, 250 ft. from N and E lines of SW of Sec. 5, Thomas Adams Sur. ..... T.D. 1,785 ft.; S.D.
Texas Prod. Co.'s No. 2 Terrell, 3,700 ft. SW of NW cor. of Ely Jurdan Sur. and 43,000 ft. SE at right angles ..... T.D. 1,610 ft.; abnd.

LEE COUNTY

Henderson & Holden's No. 1 Dismuke, 600 ft. to E line, 150 ft. to N line of farm, J. Maxmilian Sur. ..... Rigging up.
A. H. Wheeler and associates' No. 1 fee, Blk. 47, H. Donohue Sur. ..... T.D. 3,890 ft.; S.D.
C. B. Polk et al's No. 1 Stoltz, Hiram Donohue Sur. ... T.D. 2,300 ft.; S.D.
Chadwick et al's No. 1 Hickey, 1,000 ft. to NW line, 300 ft. to NE line of farm in Varrelman Sur. ..... T.D. 20 ft.; spudded in.
Washington-Lee Oil Co.'s No. 1 L. Hicket, 1,100 ft. from N line, 200 ft. from E line of tract in J. D. Varrelman Sur. ..... Location.

McMULLEN COUNTY

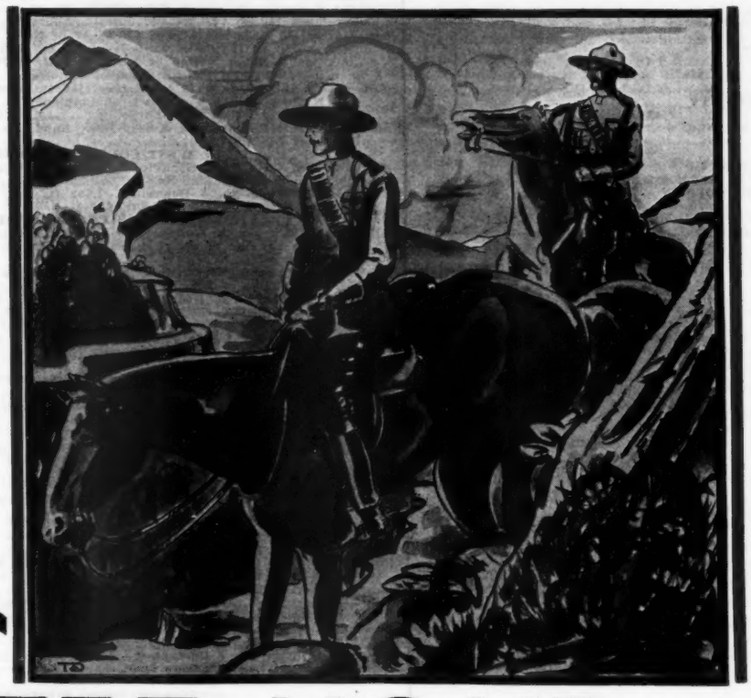
Jacob, Buzzini & Pickett's No. 1 Brewer, 750 ft. NE of Pickett's No. 1 Nelson ..... T.D. 565 ft.; drlg.
V. G. Schimmel's No. 1 F. A. Hale, 850 ft. from N line, 1,580 ft. from W line of Sur. No. 63 ..... T.D. 400 ft.; set csg to test.

MAVERICK COUNTY

I. N. Boicourt's No. 1 Bandera, School Land ..... T.D. 2,284 ft.; standing.

MEDINA COUNTY

Frank A. Brown's No. 1 Fohn, 150 ft. from E line, 790 ft. from N line of J. F. Torry Sur. No. 113 ..... T.D. 922 ft.; twisted off drill stem, fishing.
C. J. Webster Oil & Gas Co.'s No. 1 Adams, 3,450 ft. to N line, 160 ft. to E line of Jos. Hillemeyer's No. 25. T.D. 2,550 ft.; drlg.



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R. P. (Salty) CLARK
114 West Second St.
Tulsa, Okla.

MILAM COUNTY

H. W. Elliott's No. 1 Marek, 767 ft. from N line, 580 ft. from W line of 160-ac. tr. in B. Wickson Sur. ..... T.D. 3,000 ft.; S.D.
Nowlen's No. 1 Beard, 1,350 ft. from SE line, 450 ft. from SW line of farm, in J. F. Guthrie Sur., 4 miles S Thorndale ..... T.D. 2,036 ft.; abnd.
Red Bank Oil Co.'s No. 2-A J. A. Foster, 5,243 ft. to SW line, 150 ft. to NW line of farm ..... T.D. 5,050 ft.; drlg.
Frank A. Yeager's No. 1 Hose, 750 ft. from E line, 150 ft. from S line of lease in E. Allen Sur. ..... T.D. 1,376 ft.; set csg.

NUECES COUNTY

C. E. McCarthy's No. 1, W of Corpus Christi ..... Making location.
Southern Crude Oil Pur. Co.'s No. 1 Chas. E. Stratton, 1,650 ft. E line, 330 ft. S line of P. Sancho Sur..... Plugged back to 4,801 ft., and comp. as small gas well.

REAL COUNTY

McGinley Corp.'s No. 1 Haby, C of SW, Sec. 175 ..... T.D. 2,520 ft.; S.D.

SAN PATRICIO COUNTY

John F. Camp's No. 1 Jackson, SW cor. of SW Sec. 30, 3 miles N from Edroy ..... Rigging up.

STARR COUNTY

Davenport et al's No. 1 Wells, 30 miles W of Mission .. T.D. 920 ft.; drlg.
Guien Sabe Oil & Gas Co.'s No. 1 H. K. Kusch, 225 ft. from E line, 150 ft. from N line of Tract 11 in Porcion 75 ..... T.D. 125 ft.; drlg.
R. E. Johnson's No. 1 Goodrich, 1,214 ft. from N line 1,065 ft. from W line of tract, 1½ miles N of Rio Grande City ..... T.D. 831 ft.; standing.
Strauch Oil Corp.'s No. 1 M. E. Salinas, 155 ft. from N and W lines of lease in Porcion 80, Share 38 .. Drilling water well.
R. B. Suttle's No. 1 Guerra, 2,000 ft. to N line, 270 ft. to W line of Porcion 110 ..... T.D. 810 ft.; drlg.
Jess Williams' No. 1 Welsh, 1,120 ft. to W line, 1,500 ft. to N line of tract in Pedernal grant ..... T.D. 425 ft.; set csg.

TRAVIS COUNTY

C. R. Franklin et al's No. 1 J. Wilson, 160 ft. from N and W lines of farm in A. Alexander Sur. ..... T.D. 1,180 ft.; S.D.
Fuchs et al's No. 1 Shiffler, 1,000 ft. to N line, 160 ft. to E line of farm, A. C. Caldwell Sur. ..... T.D. 515 ft.; drlg.
Ray & Hense's No. 1 Hatech, in C of tr. in S. Hamilton Sur. ..... T.D. 540 ft.; S.D.

VAL VERDE COUNTY

Kenneth B. Couch's No. 1 Y. P. Yoas, southeast part of county ..... Spudded in.

WEBB COUNTY

O. W. Killam's No. 1 Bruni, 1,667 ft. to N line, 805 ft. to W line of Sur. No. 445 ..... T.D. 3,407 ft.; abnd.
O. W. Killam's No. 4 Bruni, 5,050 ft. to NE line, 7,675 ft. to SE line of El Ranchito tract, J. V. Borrego grant ..... Derrick.
Power & Dettenhaim's No. 1 Cowan & Goss, 1,870 ft. from W line, 1,656 ft. from N line of Sur. No. 1,606.. T.D. 255 ft.; standing.
Fansler, Johnson & Peacock's No. 1 Laurel, 425 ft. to N line, 600 ft. to E line of Blk. 10, Sur. 271 ..... T.D. 1,260 ft.; drlg.

WILLIAMSON COUNTY

Burns et al's No. 1 Wilder, 1,800 ft. to N' line, 200 ft. to W line of tr. in H. Owens Sur. ..... T.D. 1,480 ft.; no report.
Hays & Gee's No. 1 E. G. Johnson, 1,800 ft. from N line, 170 ft. from E line of tr. in B. C. Low Sur., S of Georgetown ..... T.D. 1,595 ft.; S.D.
McLean et al's No. 2 R. C. Miller, 800 ft. to S line, 100 ft. to W line of tract in B. Manlove Sur. .... Rigging up.
McLean's No. 1 R. C. Miller, 300 ft. from S line, 150 ft. from W line, of farm in Manlove Sur. ..... T.D. 1,800 ft.; abnd.
G. B. Peterman's No. 1 Galler, 1,800 ft. from S line, 150 ft. from W line of 140-ac. tract in H.Y.&B.R.R. Sur. ..... T.D. 1,100 ft.; drlg.
R. S. Wilson's No. 1 Speckles, 150 ft. N of road, 600 ft. from W line of farm in J. Jordan Sur., 1 mile N of Coupland ..... T.D. 875 ft.; S.D.

WILSON COUNTY

A. M. Blume's No. 1 Nickolson, C. Diaz Sur. ..... T.D. 1,600 ft.; S.D.

ZAPATA COUNTY

Ballard & Mercer's No. 1 Flores, 500 ft. from NE line, 580 ft. from SE line of Blk. 27, Porcion 37 ..... T.D. 1,635 ft.; drlg.
United North & South Development Co.'s No. 1 Guiterrez, 150 ft. from NE line, 488 ft. from NW line of Blk. 325 of E. M. Doty lease in Charco Redondo grant ..... T.D. 1,947 ft.; abnd.

ZAVALLA COUNTY

Carpenter & Jenkins et al's No. 1 John Wolf, Sec. 8, Abstract 1,199 ..... Drlg.

SOUTHWEST TEXAS PROVEN AREAS

(Continued from Page 40)

COLE POOL—DUVAL COUNTY

Cole Petroleum Co.'s No. 75 Benavides, 365 ft. from NE line, 150 ft. from NW line, Blk. 8, Sec. 18, Mariana Arispe grant ..... T.D. 1,900 ft.; drlg.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Thomas & Tarver, Inc.'s No. 5 Bishop Cattle Co., 825 ft. to W line, 1,668 ft. to S line, Sur. No. 135 ..... T.D. 2,350 ft.; comp. 300 bbls.

DARST CREEK POOL—GUADALUPE COUNTY

Humble Oil & Ref. Co.'s No. 3 Dan Denman, 885 ft. E. 150 ft. N of SW of 200-ac. tract in Wm. Arrington Sur. ..... T.D. 2,575 ft.; in Edwards; dry.

SLICK POOL—DEWITT-GOLIAD COUNTIES

Simms et al's No. 1 J. C. Tom ..... Making location.

SLICK POOL—GOLIAD COUNTY

C. R. M. and H. H. Weinert's No. 1 Stopke, 660 ft. from S and W lines ..... T.D. 4,450 ft.; abnd.

RANDADO POOL—JIM HOGG COUNTY

O. W. Killam's No. 1 Hinnant, 150 ft. N of NE cor. of Sur. No. 84 in Sur. No. 614 ..... T.D. 1,300 ft.; drlg.

LUCAS POOL—LIVE OAK COUNTY

Houston Oil Co.'s No. 24 Cartwright, 784 ft. N of No. 4, J. M. Colchado Sur. ..... T.D. 5,327 ft.; set csg.

CHITTIM POOL—MAVERICK COUNTY

Texas Gas Utilities' No. 8 Chittim, 24 ft. S of No. 7 Chittim ..... T.D. 4,850 ft.; standing.

SAXET FIELD—NUECES COUNTY

Gulf Coast Oil Co.'s No. 1 Sagarin ..... T.D. 3,100 ft.; drlg.
Gulf Coast Oil Co.'s No. 1 Elder, NW of same company's No. 1 Harrell ..... T.D. 5,070 ft.; standing.
Gulf Coast Oil Co.'s No. 2 Sedwick, east offset to company's No. 1 Harrell ..... Making location.
Gulf Coast Oil Co.'s No. 3 Sedwick, east offset to Houston Oil Co.'s No. 1-B Maggie Harrell ..... Making location.
Houston Oil Co.'s No. 1 McGregor, 150 ft. from E line, 330 ft.; from S line of 100-ac. tract in Sur. 311..... Rigging up.
Neal, Milton & Kepley's No. 2 Roark ..... Making location.
Saxet Oil Co.'s No. 3 Donigan, north offset to Zoch's No. 1 Baldwin ..... Location.
Saxet Oil Co.'s No. 5 Well, 2,041 ft. to N line, 333 ft. to W line ..... Drlg. 2,495 ft.
Saxet Oil Co.'s No. 6 Dunn, 600 ft. S of No. 5 Dunn, 4 miles W from Corpus Christi ..... T.D. 4,304 ft.; rigging up to deepen.

LOS OLMOS POOL—STARR COUNTY

Davis et al's No. 1 Kelsey-Bass, 150 ft. from S and E lines of W 10-ac. in SE of NW of Sur. 6, Porcoin 75.. T.D. 125 ft.; drlg.
Jones & Watt's No. 1 Kelsey-Bass, 200 ft. to N and W lines of Sur. 7, Porcions 75, 76 and 77 ..... T.D. 150 ft.; drlg.
Rio Oil & Gas Co.'s No. 1 Kelsey-Bass (formerly carried as Los Olmos Oil & Ref. Co.'s No. 1 Kelsey-Bass) ..... T.D. 910 ft.; drlg.
Rio Oil & Gas Co.'s No. 3 Kelsey-Bass, No. 6 Subd., Porciones 75, 76, 77 ..... Rigging up.
San Marcos Oil Co.'s No. 3 Ivey, 450 ft. W of No. 2 ..... T. D. 423 ft.; standing.
San Marcos Oil & Gas Co.'s No. 5 Ivey, 150 ft. from E line, 450 ft. from N line of Share 8, Sub. of Porciones 75, 76 and 77, Jurisdiction of Camargo ..... T.D. 210 ft.; set csg.
San Marcos Oil & Gas Co.'s No. 6 Ivey, 150 ft. from E and N lines of Share 8, Subd. of Porciones 75, 76 and 77, Jurisdiction of Camargo ..... Location.
Suttie & Rutherford's No. 1 Kelsey-Bass, Subd. No. 9, Porciones 75, 76, 77 ..... Rigging up.

WEST COLE POOL—WEBB COUNTY

Magnolia Pet. Co.'s No. 6 Benavides, 1,630 ft. to N line, 150 ft. to E line of Sur. No. 660 ..... T.D. 2,336 ft.; waiting on cement.
French Oil Corp.'s No. 5 Benavides, 1,602 ft. from N line, 150 ft. from W line of Sur. 659 ..... T.D. 200 ft.; drlg.

ESCOBAS POOL—ZAPATA COUNTY

Allied Gas Co.'s No. 21 Gutierrez, 656 ft. to SW line, 500 ft. to SE line of Share 4, Fansler Partition of Comitas grant ..... T.D. 1,459 ft.; waiting on cement.
F. M. Blair & Son's No. 1 Montemayor, 450 ft. to N. 150 ft. to E line of Blk. No. 1, Sur. No. 63 ..... Rigging.
Brogan & Belcher's No. 1 M. Garza, 150 ft. to NE and SE lines, Blk. 62, C. A. Couglas Subd. of Zorro Ranch, Comitas grant ..... T.D. 600 ft.; drlg.
Daniels & Hill's No. 1 Montemayer, 150 ft. from S and W lines of Blk. 7, Sur. 64 ..... T.D. 1,484 ft.; comp. 200 bbls.
F. H. Etheridge's No. 5 Bustamente, 1,540 ft. from NE line, 150 ft. from NW line of Sun 80-ac. lease, Share 35, Fansler's Partition, Comitas grant ... ... Location.
O. W. Killam's No. 18 Bustamente, Share 5, Fansler Partition, Comitas grant ..... T.D. 1,478 ft.; comp. 20,000,000 ft. gas.
O. W. Killam's No. 3 Medina (Bustamente), 150 ft. to NW and NE lines, Share 34, Fansler Partition, Comitas grant ..... T.D. 1,461 ft.; comp. 200 bbls.
O. W. Killam's No. 4 Medina, 500 ft. to NE, 150 ft. to NW lines of Share 34, Fansler Subd. of Comitas grant ..... Location.
O. W. Killam's No. 5 Medina, 850 ft. from NE, 150 ft. from NW lines of Share 34, Fansler's Subd. of Comitas grant ..... Location.
Norden & Morris' No. 3 De Los Santos, 150 ft. to NE and SE lines of Share 6, Fansler Partition of Comitas grant ..... T.D. 1,436 ft.; waiting on cement.
S.R.C. Oil Co.'s No. 6-D Montemayor, 150 ft. from N and W lines of Blk. 10, Sur. 64 ..... T.D. about 1,450 ft.; set csg.
Trevino Oil Corp.'s No. 15-A Trevino, 150 ft. to S and W lines, Blk. 13, Sur. No. 412 ..... T.D. 1,250 ft.; comp. 20 bbls.
Winch & Billings' No. 8 Bustamente, 150 ft. to SW and SE lines of 31-ac. Pal-Mar tract, Share 35, Fansler Partition, Comitas grant ..... T.D. 500 ft.; drlg.

CHARCO-REDONDO POOL—ZAPATA COUNTY

Bob & Richey's No. 28 Martinez, 990 ft. from SW line, 615 ft. from SE line, Blk. 24, Duke Subd., Charco Redondo grant ..... Location.
Bob & Richey's No. 29 Martinez, 810 ft. from SW line, 360 ft. from SE line of Blk. 24, W. R. Duke Subd., Charco Redondo grant ..... Location.

MARTINEZ POOL—ZAPATA COUNTY

F. H. Etheridge's No. 2 Winch & Henne, 1,100 ft. to W line, 520 ft. to S line, Sur. No. 286 ..... T.D. 1,500 ft.; drlg.

WILDCAT OPERATIONS IN OKLAHOMA

(Continued from Page 33)

LINCOLN COUNTY

Hilton Phillip's No. 1 Phillips, SW NW, Sec. 2-14-3. ... T.D. 4,840 ft; rig skidded 50 ft.
Mote et al's No. 1 School Land, NW cor. Sec. 36-17-5... S.D. 1,160 ft.

MUSKOGEE COUNTY

Sioux Oil Co.'s No. 1 Unknown, NW SE, Sec. 21-11-19.... S.D. 1,011 ft.

OKFUSKEE COUNTY

Shepard et al's No. 1 Nevens, SE NW SW, Sec. 3-12-10.. S.D. 3,638-90 ft.; Wilcox sand; hole full water.

OKLAHOMA COUNTY

Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w ..... S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW, Sec. 17-11-3w ..... S.D. 5,515 ft.

PAWNEE COUNTY

Rookstool's No. 1 Wylie, NW NE SW, Sec. 6-20-5 ..... S.D. 1,950 ft.

PITTSBURG COUNTY

Tape Oil Co.'s No. 1 Fulton, SE, Sec. 34-7-14 ..... S.D. 1,200 ft.
J. Morrison's No. 1 Fowler, NE SE, Sec. 13-7-17 ..... Rig.
C. Kennedy's No. 1 Travis, C SW NE, Sec. 15-7-14 ..... Rig.
C. Canady's No. 1 Jones, NW cor. Sec. 14-8-14 ..... Rig.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW, Sec. 23-12-24w..... C.O. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE, Sec. 4-11-26w..... S.D. 3,375 ft.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Wolfe, NE SW, Sec. 23-9-17w..... Rig.
Cooper & Terhune's No. 1 Blocker, NW cor., Sec. 29-8-19w ..... Drlg. 2,740 ft.; show oil 2,459-ft ft.; S.D. 2,757 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18 ..... S.D. 1,265 ft.

OKLAHOMA PANHANDLE

TEXAS COUNTY

Three Way Oil Co.'s No. 1 Crane, SW NW, Sec. 11-1-1B. T.D. 4,720 ft.; to cement.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Morris et al's No. 1 Mansell, SW NW NW, Sec. 9-2s-12.. Abd. 285 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE, Sec. 18-3s-10 ..... S.D. 1,720 ft.

BRYAN COUNTY

Bryan County Oil's No. 1 Childs, NW SE SW, Sec. 7-7-10. T.D. 650 ft.
Bush et al's No. 1 Commerce Trust, NE cor. Sec. 35-6s-9 ..... T.D. 740 ft.; plugged back to 414-80 ft.
Whalem et al's No. 1 Mason, NW SE SW, Sec. 24-6s-9... S.D. 845 ft.

CARTER COUNTY

Lundy's No. 1 Spraggins, C NE NW SW, Sec. 8-1s-2w.. Drlg. 640 ft.

JEFFERSON COUNTY

Smith's No. 1 McCarty, SE NW NE, Sec. 18-4s-8w ..... Location.

LOVE COUNTY

Autry et al's No. 2 Cross, CWL SE NE Sec. 27-6s-2 .... Show oil and gas 970-72 ft. and 1,324-34 ft.; S.D. 1,651 ft.
Schemerhorn et al's No. 1 Bourland, NE NW SW, Sec. 1-6s-1 ..... Drlg. 956 ft.

MARSHALL COUNTY

Everette et al's No. 1 Agres, SE NE, Sec. 14-7s-6 ..... S.D. 1,170 ft
Newman et al's No. 1 Henry, NW cor. Sec. 22-7s-6..... Rig.

McCURTAIN COUNTY

Prassell et al's No. 1 Wagoner, SE NE, Sec. 5-8s-27 .... S.D. 150 ft.
Stampfs et al's No. 1 Harris, SW NW SW, Sec. 14-9s-25.. Drlg. 2,300 ft.
Stewart's No. 1 Patterson, C SE SE, Sec. 7-6s-24..... Drlg. 830 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW, Sec. 35-3s-18 ..... S.D. 575 ft.

STEPHENS COUNTY

Dameron & Brock's No. 1 Dameron, SE SW NE Sec. 11-3s-6w ..... Drlg. 300 ft.
Brown's No. 1 Hightower, SW SE NE, Sec. 15-3s-5w..... Sand 990-1,004 ft.; B.O.; S.D.
George's No. 1 Ryan, NW SW NE, Sec. 31-3-15 ..... S.D. 120 ft

New Completions and Drilling Operations In Tioga Gas Field

By Special Correspondent

WELLSBORO, Pa., Feb. 6.—The latest roundup of field operations in the Tioga gas field, and in the wildcat area in Tioga and Bradford Counties, show 15 wells active in drilling and 14 shut down, most of the latter being at a depth far below the point at which gas was hoped for when the operations were started.

In the Tioga district, the Universal Oil & Gas Co.'s No. 1 H. A. Croft, in Lawrence Township, was cleaning out after a 40-quart shot in sand at 4,102-17 feet. The well had been drilled to a total depth of 4,124 feet. The Shaler Oil Co.'s No. 1 L. Gee, in Middlebury Township, was abandoned, and was being plugged, at 5,300 feet. Talliaferro and others' No. 1 H. G. Smith, in Tioga Township, was abandoned at 5,308 feet. The top of the lime was found at 5,205 feet and the top of the sand at 5,234½ feet, but it never had a show of gas. The East Penn Development Co. tested its recent completion on the E. J. Hall farm in Farmington Township and it made 8,309,000 feet of gas in 24 hours. The well is at a total depth of 4,142 feet.

The latest report on Hungerford and others' well on the Booth farm in Hebron Township, in Potter County, which was drilled to a total depth of 4,924 feet, credits it with 8,253,000 feet of gas in 24 hours. It is producing from Oriskany sand. The East Penn Development Co. was reported drilling at 750 feet in its No. 1 Carmer, in Hebron Township.

In the Tioga area the following active operations are reported: Wells Corp. on the county home farm, Charleston Township, casing at 5,503 feet; Allegany Gas Co., on the Davey farm, Richmond Township, drilling at 4,950 feet; Keefer and others on the Schofield farm, Richmond Township, drilling at 3,525 feet; Morris Run Coal Co. on the W. J. Butters farm, Union Township, underreaming at 4,530 feet; Allen Reed, trustee, on the Leo Gee farm, Lawrence Township, drilling below 3,000 feet; C. E. Updegraf on the Updegraf farm, Rutland Township, drilling at 1,860 feet; Penn United Natural Gas Co. on the Linus Wilson farm, Farmington Township, fishing. The well is bottomed on top of the sand at 4,051 feet. Workman and others' well on the C. M. McCallum farm, Farmington Township, was drilling at 4,063 feet; East Penn Development Co. on the Charles Thomas farm, Farmington Township, drilling below 500 feet. The East Penn Development Co. is building a rig on the Jesse Smith farm in Lawrence Township.

In Bradford County, the Penn-York Co. is fishing at 5,227 feet on the Hettick farm in Towanda Township. The same company is drilling at 5,450 feet in the Dickenson farm, Burlington Township. W. W. Keefer, Jr., is drilling below 2,400 feet on the Kennedy farm in Ulster Township.

The East Penn Development Co. is drilling at 2,850 feet on the Emporium Lumber Co. land in the East Fork district, Potter County.

MICHIGAN FIELDS

(Continued from Page 45)

and 330 feet from the west line of the farm; D. H. Haskell and H. J. Conover and others' No. A-1 E. L. Rhemenschnider farm, NW SW NE Section 14, same township, 330 feet from the south and west lines of the farm; W. L. McClanahan's No. 4, 990 feet from the north line and 350 feet from the west line of the A. G. Struble, SW NE SW Section 10, same township.

Shell Getting Acreage

The Shell Petroleum Corp., through its Muskegon office, was one of the highest bidders on a block of state land in the vicinity of the Mount Pleasant Field recently offered at public auction. This is the first time the Shell corporation has made an offer for state land, according to Stanley G. Fontanna, head of the lands division. Mr. Fontanna says recent developments in the Midland-Mount Pleasant Field have attracted more of the larger operators than at any time since the discovery well was brought in by the Pure Oil Co. in 1928. The average price was 32 cents an acre and the highest bid was $2.22 an acre. Bids were taken on a total of 1,686 acres. Acreage is approximately 6 miles northeast from the New East Pool, where the large producers are being found.

CALIFORNIA FIELDS

(Continued from Page 45)

tion's No. 58-20 J, in the North Dome of Kettleman Hills and spud should be made some time during the next 15 days. The drill pipe, frozen in the North American Oil Consolidated's No. 1 Blauvelt at 8,800 feet, was backed off at 3,240 feet during the early part of the past week and the remainder is being cut out and pulled.

The Milham Exploration Co. successfully recompleted its No. 2 Kern in the Buttonwillow gas field during the past week and this well, in Section 8-28-23, was returned to production flowing 25,000,000 feet of gas per day. No. 2 Kern was bottomed at 2,702 feet but was subsequently plugged back to 2,508 feet and the 11¾-inch casing perforated from 2,479 feet to 2,508 feet. In addition to finishing this well, the Milham started rigging up No. 10 Kern in Section 5-28-23 and this new well should be spudded in shortly. The Fullerton Oil Co. has abandoned its second structure survey hole in the Semitropic region of Kern County and work has already been started on the third core hole test. There were no completions in the Fruitvale Field of Kern County but with three projects standing cemented on top of the pay we may anticipate the completion of at least two wells during the next two weeks. All of this work in the Fruitvale Field is in the Fairhaven area and a check indicates the probability that several additional wells will be spudded in during the next few weeks.

Inglewood

The Standard Oil Co. completed No. 68 on Los Angeles Investment Lease No. 1 in the Inglewood Field of Los Angeles Basin during the past week and this new well was brought in on the beam pumping 230 bbls. of 18.1 gravity oil cutting 8 per cent water. This new well was bottomed at 1,968 feet and finished with a 6⅝-inch oil string carrying 331 feet of perforated. Two recompletions were chalked up in the Dominguez Field during the past seven-day period. The largest well finished was the Shell Oil Co.'s No. 41 Reyes, a recompletion which was returned to production doing 1,735 bbls. of exceptionally clean 32.3 gravity oil per day on a gas lift. This well was originally bottomed at 5,122 feet and given a preliminary production test several weeks ago but was subsequently carried down to its present depth, 5,270 feet. The Union Oil Co. recompleted No. 23 Callender, which ran into bottom water at 5,120 feet a few weeks ago, and this project has been returned to production doing 300 bbls. of 28.3 gravity oil per day with a plug set at 5,070 feet. Two new wells are being started in the Dominguez Field, one by the Shell and one by the Union. The former's new project is No. 42 Reyes, and the latter's new well is No. 18 Hellman, rigs for which are being constructed at the present time.

The Baldwin Hills Syndicate drilled into a fairly good looking oil sand in No. 1 Sentous, an outpost in the Inglewood Field of Los Angeles Basin early in the week and this well may bear watching as the showings encountered have exceeded all expectations. The top of the oil sand found in this well was encountered at 3,994 feet and the bit was still in the pay at 4,036 feet when drilling was concluded to land a string of casing. Approximately 28 feet of a medium grained well saturated oil sand was recovered and a test indicates that it apparently contains a light oil as it showed a good cut and odor. A formation tester was run but unfortunately this became frozen at 3,990 feet and progress has been held up pending recovery of the fish. This deep test is well down on the southeast plunge of the structure and if production is secured in a new deep zone it will necessitate extensive offsetting unless operators can agree on some definite program to retard future development. This well is of extreme importance and will bear watching during the next few weeks as productive zones are known to exist below present productive horizons.

The Ranger Petroleum Co. put its No. 2 Watson on a production test a few days ago and this wildcat, in the Watson area of Los Angeles Basin, is pumping approximately 25 bbls. of heavy oil per day. It was completed at 3,784 feet and while the production is clean the oil is of a heavy gravity averaging approximately 15 degrees A.P.I. The Allied Petroleum Co. successfully completed No. 4 Garrison in the Long Beach Field during the past week and this well is pumping 165 bbls. of relatively clean 27.8 gravity oil per day from 4,710 feet, the hole having been finished with a 5¾-inch liner carrying 307 feet of perforated. The Onyx Oil Co. also listed a completion at Long Beach during the week when its No. 2 Signal was brought in pumping 270 bbls. of 28.6 gravity oil per day from 5,575 feet. This well, on the south side of Hill Street and on the west side of Cherry Street, is in an area which has not been developed and may result in the drilling of several new wells on adjacent acreage. The Union Oil Co. has staked location for another test on the Vidor lease in the Playa Del Rey Field of Los Angeles Basin and rig construction for this new well, to be designated as No. 4 Vidor, should get under way within a few days. No. 1 Vidor has been on production for several weeks and is flowing 175 bbls. of 22.3 gravity oil per day. This well proves up all acreage between it and the present congested town lot area.

EASTERN FIELDS

(Continued from Page 46)

proaching the sand in its test on the Frank Drake farm, Section 3 of the same township. In Perry County, the Hopewell Fuel & Gas Co. has a second test drilling on the Scallon heirs farm in Section 14, Reading Township.

WEST VIRGINIA

No new oil producers were reported from West Virginia and but four new gas wells were added to the totals. Three of the gas wells were tests but in well-proven areas.

In the fairly active Calhoun County, two additional gas wells were completed. In Center district, Creed Barker and others completed a fair well on the Hattit D. Hathaway farm. It was drilled to a depth of 2,122 feet, the Injun sand and is showing for over 400,000 feet a day natural. In the same district, W. Bickerstaff and others drilled a test on the John W. Haddox farm to 2,140 feet and in the Injun sand, and has a showing for a small gas well natural.

In Gilmer County the Pittsburgh & West Virginia Gas Co. completed its No. 7,572 on the P. W. Bartlett farm on the waters of Millstead Run, DeKalb district. It went to the Injun sand, depth 1,824 feet, and is showing for a very fair gas well. In Putnam County, Clarke and Life drilled their old test well on the W. H. Chapman farm in Scott district deeper to 2,107 feet. The well is making a fair showing.

In Cabell County the test recently completed by D. R. Campbell and others on the C. C. Dunn farm in Guyandotte district in the Shale formation is holding up nicely at close to 1,250,000 feet a day.

Drilling in West Virginia

In Ritchie County, C. B. Lewis and others have reached 800 feet on the Delia Lyons farm in Murphy district. In the same district, H. H. Allen has a rig standing on the J. P. Allen farm. In this district, the Lewis Drilling Co. has started a test on the J. S. Sandy farm.

In Wood County the deep test of W. H. Bickle on his own property in Lubeck district is bailing water from a depth of 4,375 feet. In Union district, Charles Smith has spudded in and started drilling on the William H. Compton farm. In Walker district, Hugh Prather is drilling on his own property and is down 450 feet. In Williams district, Warren Reed is down 300 feet on the C. S. Reed farm. In Walker district, the G. C. Alleman Oil Co. has reached 350 feet on the E. C. Linger farm.

With the completions of this and last week, operations in Gilmer County have about ceased. There are still two rigs standing for tests, both in DeKalb district. Frank Golden and others have a rig standing on the H. E. Engle heirs farm, and A. E. Ellis and others one on the Alice M. Ayers farm. It is reported that neither will be drilled in the near future.

In Jackson County, G. G. Griffin and others have rigged up on the D. E. Cole farm in Ravenswood district. In Lewis County, the Southern Oil Co. is drilling a fifth well on the E. C. Butcher farm in Court House district. In Hancock County, the R. J. Braden Co. is drilling out a plug in an old oil well on the J. C. Hamilton farm, preparatory to testing for production.

In Cabell County, R. H. Adkins and others are down 3,690 feet on the B. S. Perry farm in McComas district and have shot the formation at that depth. It is being cleaned out for testing. In Guyandotte district, C. C. Wolfe is down 1,300 feet on the J. S. Stanley farm. In Logan County, the West Virginia Natural Gas Co. is still fishing in its No. 36 on the Dingess Run Coal Co. tract in Logan district and had reached 2,370 feet. In Chapmansville district, the Cumberland Petroleum Co. is moving in to drill No. 5 on the Merrill Coal Co. lease.

In Roane County, the deepest eastern test is down with a fishing job at 9,100 feet. It is the United Fuel Gas Co. test on the J. W. Hinzman farm in Curtis district, and it is hoped that the tools will be recovered as the hole is scheduled for greater depths.

SOUTHWEST PENNSYLVANIA

No oil wells were completed in Southwest Pennsylvania, but two gas wells in lower Butler County were brought in. One was quite fair for that district. In Middlesex Township, a local syndicate completed a test on the F. Albert farm at a depth of 1,886 feet, the hundred-foot sand. It is showing for about 1,000,000 feet of gas a day. In Adams Township, W. I. Goettman completed his test on the J. C. McKinney farm at 2,785 feet. It is estimated as a very light gas well.

In Allegheny County, a local company is drilling on the W. M. Martin farm and has reached 1,600 feet. This well is in Richland Township. In Allegheny Township the Swain Oil Co. has reached 300 feet on the A. L. Burg farm and temporarily shut down.

In Washington Township, not much progress is being made. In East Finley Township the Union Gasoline & Oil Co. is down 2,915 feet on the W. B. Smith farm. In Smith Township the Hopewell Oil & Gas Co. has shut down at 1,350 feet on the Albert Noble farm. In the same township, William Dallmeyer reached 1,450 feet on the Thomas Brown farm and the hole is standing at that depth. In Chartiers Township a local company drilled 2,500 feet deep on the A. Woodruff farm as a test and as yet there has been no completion. In Mount Pleasant Township the Hickory Penn Gas Co. suspended drilling for the time in its test on the Henry Seik farm.

REAGAN COUNTY ROYALTIES

AUSTIN, Tex., Feb. 8.—By agreement, the State's suit against Reagan County Purchasing Co. has been set for March 4 in Ninety-eighth District Court here, in which Attorney General James V. Allred is contending the University of Texas is entitled to $500,000 additional royalties on oil, based on the proper computation of market price under a former litigation on which the State recovered $1,000,000 and agreed that the leases of Reagan County operators should be accepted by the State as valid.

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FOR SALE—New Braden Type B-15 heavy duty winch. Suitable for use with truck or tractor as rod and tubing machine. Address Box E-930, The Oil and Gas Journal, Tulsa, Okla.

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GASOLINE PLANT

(Absorption)

Complete in every detail.

Located at Dewey, Okla.

Write

Dewey Portland Cement Co.

Dewey, Okla.

200 AMP. General Electric Arc Welder; portable; 220 V. 3 ph. 60 cy. Complete. Like new. $350. 7x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $225. 8x6 Ingersoll-Rand Type ER-1 Air Compressor. Like new. $250. 36"x18' Fifield Screw Cutting Lathe. $650. Also large stock of lathes, shapers, pipe machines, bolt threaders, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West Second St., Cincinnati, Ohio.

FOR SALE—All equipment from two dismantled Dubbs Cracking Plants, including two Dow surge pumps with less than 18 months' service, Worthington duplex steam pumps, Key & Ohiolock headers. Taglinbue pressure controllers and variety of forged and cast steel fittings. Material in first-class condition and subject to inspection. Address Box E-842, The Oil and Gas Journal, Tulsa, Okla.

20 Waukesha engines, heavy-duty, 4-cyl., 120 H.P. Cheap.
MERTES MACHINERY CO.
1622 S. First St., Milwaukee, Wis.

EQUIPMENT WANTED

WILL BUY good used casing, line pipe tanks, cable tools and drilling equipment. Write P.O. Box No. 454, Casper, Wyo.

WANTED—Oil Well Equipment to sell. Oklahoma and Kansas. Straight commission. Many years' experience; established trade. Address Box E-950, The Oil and Gas Journal, Tulsa, Okla.

BUSINESS OPPORTUNITIES

INVESTORS, experienced oil men and geologists are drilling geological structures in Texas. Require $25,000 additional capital. If in a position to invest $250, get details our startling offer. Money secured, A 1 references. Investigate as you never had opportunity to equal it. Address Box E-953, The Oil and Gas Journal, Tulsa, Okla.

EXCEPTIONAL opportunity for experienced oil man or royalty specialist with dependable connections to join investment broker opening eastern offices for sale of royalties. Partnership or profit-sharing basis. Give full particulars. Address Box E-952, The Oil and Gas Journal, Tulsa, Okla.

EASTERN broker with select clientele is in the market for good producing royalties. Opportunity for permanent connections if prices are right. Address Box E-951, The Oil and Gas Journal, Tulsa, Okla.

DRILLING company or party wanted. Will assign half interest in 400 acres, Rusk County, East Texas, close to production, to one who will finance drilling. Apply Lester Jacobson, 1018 Fifth Ave., Pittsburgh, Pa.

DEPRESSION

Forces Major Oil Company (doing business nationally) to permit outsiders to develop (drill) on equitable and liberal participation arrangement, several expensive and practically proven oil structures in prolific gusher area in east and southeast Texas on which large sums have been expended on surface and subsurface geology and geophysical instruments. Unrivaled opportunity. Investigate. Prompt action necessary. P. O. BOX 305, FORT WORTH, TEXAS.

MANY GREAT BARGAINS—Copper, Lead, Silver or Gold—Have no partners. C. J. Greene, Sells, Arizona.

WANT FINANCIAL PARTNER to assist in development of gold mining property quartz in proven district. Will give interest. John Rodanic, Box 715, Rock Springs, Wyo.

WITH $10,000 CAPITAL — Believe can make a profit of $100,000 in six months' time trading in commodities. Time is here now. Years of experience. GREGG SNYDER, 25 Broadway, New York.

FOR SALE—EQUIPMENT

BUSINESS OPPORTUNITIES

OIL located before drilling. Geophysical method. Topodometer Instrument; take pay in oil. No oil, no pay, except traveling and testing expenses. 95 per cent accuracy. O. P. Coffin, Caddo, Tex.

IF YOU WANT oil and gas leases in blocks or less in Marion or Cass Counties, Texas, communicate with G. W. Brown, Jefferson, Texas.

WANTED—Seismic shot holes, shallow production or core drilling contracts, Ritter-Dugan Drilling Co., Perry, Okla.

$8.00 BUYS Deed, part oil, 10 acres, Oklahoma County—MANY WELLS NOW DRILLING, Joe Milam, Dept. 43, Oklahoma City, Oklahoma.

SITUATIONS WANTED

ENGINEER—pipe line-production-distribution-inventory appraisal-abstracting, anywhere. Write Box E-920, The Oil and Gas Journal, Tulsa, Okla.

CERTIFIED DIESEL ENGINEER, eight years' broad experience in the petroleum industry's Drilling, Production, Pipe Lining, Gas Testing, Gasoline, Air-Gas Lift, Chemical, Meter, Material, Drafting and Engineering Departments. Personal and Business qualifications will disclose real merit. Roland, Post Office Box 1563, Tulsa, Okla.

Practically experienced in Rotary and Cable drilling and fishing. Meritable sales record in field last 5 years. Now employed. Albert Woods, 524 E. 7th, Oklahoma City. References exchanged.

EXPERIENCED right of way buyer and claims agent. Recently bought 500 miles pipe line right of way. Write Box E-934, The Oil and Gas Journal, Tulsa, Okla.

HELP WANTED

MANUFACTURER of heavy machinery wants thoroughly experienced pump sales representatives with actual selling experience in either New York, Mid-Continent, Chicago or California areas. Give full details of education, experience, references and enclose a small photograph. Address Box E-941, The Oil and Gas Journal, Tulsa, Okla.

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Before disclosing your invention to anyone, send for blank form.
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Bulletin "How to Establish Your Rights" and complete information free.
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FOR SALE—EQUIPMENT

Newton Gasoline Plant Equipment

2—72"x24' Absorbers, each	$600.00
2—30"x24' Absorbers, each	$300.00
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2—30"x24' Blending Evaporators, each	$250.00
1—24"x24' Blending Evaporator	$200.00
2—30"x11', 1,183 sq. ft., Heat Exchangers, each	$400.00
2—24"x11', 702 sq. ft., Heat Exchangers, each	$300.00
2—18"x20', 668 sq. ft., Heat Exchangers, each	$275.00

Liquid Level Controls, Gaso-Water Separators, Balance Valves, and other auxiliary equipment.

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Mail your advertisement to the Largest Classified Section in the Oil Industry.

THE OIL AND GAS JOURNAL

TULSA OKLAHOMA

MONEY RAISING

JAMES E. MILLER CO. will co-operate with responsible firms or parties seeking aid in financing projects of higher order. 207½ East Third Street, Tulsa, Okla.

DO YOU NEED MONEY for organizing or financing oil or mining deals? Write 2443 N. W. 12th, Oklahoma City.

JOHN MORRIS, 3608 WARREN ST., PHILADELPHIA, Pa., invites full facts first letter from capable parties planning negotiation of reasonable capital support for undertakings distinctly of higher order. Use registered mail, safeguard data.

FINANCE YOUR OWN project with shares bonded. Quickest, most satisfactory known method of raising capital. Information free. Bankers Interstate Security, Electric Bldg., Denver, Colo.

CAPITAL: An exp. dependable broker will aid in financing projects of merit. Amster Leonard, East Orange, N. J.

MONEY RAISING
Inquiries solicited from corporations interested in raising capital through marketing corporate securities.
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OIL INDUSTRY PRINTING

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Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

RANCHES AND FARM LANDS

RANCH land in Texas and New Mexico, 40 acres to 400,000 acres, improved or unimproved, $2 per acre up; cash, terms or trade for business property, stocks or bonds. Amos Poe, Andrews Building, Dallas, Tex.

INCORPORATIONS

CHARTERS — Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

PATENTS FOR SALE

FOR SALE—I have a patent on a temper screw and a drilling line clamp that goes with it though each is complete and can be used with either another screw or clamp. They each are far superior to anything in the market. Owing to pressure of other interests cannot handle them so will sell manufacturing rights or outright. Have a large size screw for demonstration. Both are the outcome of nearly thirty years of active drilling experience. I have used the screw on a difficult fishing job and it worked to perfect satisfaction. Morton H. Magie, Box 132, San Marcos, Texas.

CANADIAN FIELDS

(Continued from Page 42)

tive figures for the same month are given in parallel:

	December 1931	December 1930
Turner Valley naphtha	87,511	165,799
Turner Valley light crude .	3,590	2,885
Red Coulee light crude	4,069	6,341
Wainwright heavy crude..	339	441
Ribstone heavy crude	603	106
Total	96,112	175,572

Storage at the end of December amounted to about 14 days' production at the rate existing in December. Because the market has been unable to absorb all offering, the rate of production has been curtailed, and a considerable capacity for storage has been built in the field.

Turner Valley Gas-Oil Ratios

In December the average quantity of gas required to produce a barrel of naphtha was 136,000 feet. The most favorable company required only 19,000 feet per barrel and the least favorable company required 731,000 feet per barrel. An average of 2,810.2 bbls. of naphtha per day was produced, or a total of 87,123 bbls. for the month. Average gas produced per day was 381,676,000 feet. Average gas used per day in December from Turner Valley was estimated at 40,210,000 feet and the remainder was wasted.

Old Wells Resume

It is probable that Anaconda Oil Co.'s No. 2, LSD 16, Section 22-20-3w5, in the North Turner Valley area, will resume drilling within the next few months. This well, which has been standing at 3,575 feet, will be completed by Model Oils, Ltd., which last December bought the lease, drilling equipment and, which already has a good producing well in LSD 8, same section. It is reported that negotiations are under way for completion by other interests of Livingston Syndicate's No. 1, LSD 5, Section 34-18-2w5, in the far south end of the Turner Valley Field. This is one of the newer tests and has been carried to about 2,160 feet.

Most of other unfinished tests were started in the boom years 1928 and 1929 and have been standing since the latter year. Except, however, for the Spray and Anaconda wells, none of the negotiations for the taking over and completion of unfinished tests have reached a definite conclusion.

Tests in the Foothills

In the Alberta foothills northwest of Calgary, Cartier-Majestic's No. 1, LSD 3, Section 36-31-7w5, drilling will be resumed this month at 1,135 feet after the holiday shutdown. Some oil and gas indications have already been encountered and the log indicates that the Madison limestone may be reached by comparatively shallow drilling.

On the High River-Aldersyde structure, Ranchmen's Gas & Oil Co.'s No. 1, LSD 16, Section 13-20-29w4, is making new hole below 5,365 feet. The drill is reported working in a harder formation.

Border Fields

On the Milk River structure, southern Alberta, Commonwealth Petroleum's No. 1, LSD 8, Section 9-3-15w4, is reported resuming with new rotary outfit at 5,090 feet after completing water well. Sheldon-Burden Co. of Canada is handling the contract. The rotary outfit will enable the drillers to secure cores of the lower Devonian, which has never been tested in the southern Alberta area.

Red Coulee Field

On the Montana end of the international Red Coulee structure, Cosmos Petroleum Co.'s No. 3 Iowa, NE SE Section 2-37-4w, has recovered two bailers dropped in the hole and is plugging off bottom water to put the well in production. At one stage there was about 2,200 feet of fluid in the hole, after 150 bbls. had been bailed. The test got its oil show in the Cosmos sand at around 2,520 feet and indications are for a good commercial producer.

Montana Producer

Southern Alberta operators are interested in Western Natural Gas Co.'s No. 1 Hicks, NW NE Section 26-37-4w, which appears to have got a small but steady production. The well has been pumping about 12 bbls. a day with shutdown at night, the crude being partly stored on the lease and partly trucked to the topping plant at Bear's Den. Production is apparently from a stray sand above the Sunburst, which was the original objective; and if it fails to hold around the present figure the test may be deepened to the Sunburst. W. E. Rice and associates are reported to have located a test in SE NW Section 3-36-4w, about 2½ miles southwest of Western's No. 1 Hicks, but owing to bad weather equipment and material have not yet been moved to location. Another location has been spotted in E half Section 35-37-4e. All three locations are on the Strode structure. The Strode structure is thought to extend a considerable distance into Alberta.

KANSAS FIELDS

(Continued from Page 34)

pleted for 240 bbls. in Siliceous lime at 3,302-06 feet. Roth & Faurot's No. 4 Winfield, Lot 4, Block 38, Reynolds College View addition, Section 22-32-4, made 920 bbls. in Siliceous lime at 3,286-88 feet.

Ellsworth County

H. K. Beardmore and others moved in rig timbers for No. 1 Stoltenberg, SE cor. NE SE Section 22-16-10w. Aylward and others have timbers on the ground for No. 3 Stratman, SE cor. SW SE Section 1-17-10w.

Greenwood County

Mathews & Rex moved machine in for No. 1 Wilson, SE cor. NW Section 8-24-12. Simmons and The Texas Company's No. 1 Bullion, SW cor. SE Section 22-23-11, is dry and abandoned at 2,140 feet.

Kingman County

Skelly Oil Co.'s No. 1 Miles, NE cor. Section 30-27-10w, has been deepened from 3,441 feet to 3,505½ feet, where it swabbed 260 bbls. of oil and 42 bbls. of water; was plugged back to 3,464 feet and completed for 253 bbls.

McPherson County

Braden & McClure and Sinclair's No. 1 Sadey, SW cor. Section 18-19-1w, is a rig under construction. Helmerick & Payne and Shell Petroleum Corp. moved rig material in for No. 1 Lovett, SW cor. NW SE Section 12-19-2w. Dickey Oil Co.'s No. 1 Decker "B," NW cor. SW SE Section 35-19-2w, has been completed for a potential of 5,200 bbls. in chat at 2,931-57 feet. Wakefield and Shell Petroleum Corp.'s No. 1 Koehn, NE cor. NW Section 36-19-2w, made a potential of 1,417 bbls. on pumping test from Viola lime at 3,387-99 feet. Palmer and Phillips and Shell Petroleum Corp.'s No. 2 Anna Winn, SE cor. NW Section 7-20-1w, has been completed for potential of 1,278 bbls. in Viola lime at 3,397-3,405 feet.

Sedgwick County

Gypsy Oil Co.'s No. 5 Hamant, NE cor. SW NW Section 14-26-2, has been completed for 2,469 bbls. swabbing from chat a 2,865-68 feet. Magnolia Petroleum Co.'s No. 3 Vickers, SW cor. Section 17-27-2, Eastborough Pool, is dry and abandoned at 3,350 feet. Fisher & Lauck's No. 3 Trustee, NE cor. NW SE Section 19-27-2, was deepened from 2,975 feet to sand at 3,250-54 feet and completed for 600 bbls.

Stafford County

Rosenthal and others' No. 1 Gray, C NE Section 11-24-13w, has been abandoned at 4,052 feet.

Sumner County

Gypsy Oil Co.'s No. 1 Williams, SE cor. SW NE SW Section 16-35-3w, is cleaning out to deepen from 4,782 feet.

PROPOSE PLANT IN CHILE

NEW YORK, Feb. 6.—The Chilean Ministry of Public Works has asked Congress to authorize the Rochester Co. to establish a petroleum refinery in Chile. This plant, if authorized, will be the first of its kind to be built in Chile. Nothing further has developed in connection with the reported plan of the Chilean government to create an oil monopoly in that country.

Classified Wants

LEASES—PRODUCTION

LAND, the source of all wealth, the only safe investment, all royalty—on structure—new survey adjoining location—oil fields—Oklahoma County—best geology—three 40-acre tracts—one 40 sells in $100 shares. Geo. W. Seckman, Edmond. Okla.

TEXAS PANHANDLE Gas Production and Royalties is my Hobby—get my prices. Wire or write. E. B. Reeves. Box 13, Alanreed, Gray County, Texas.

LEASES—Barton Ellsworth Arch territory in Stafford County, Kansas. Write today. James R. Haynes, Grantville, Kansas.

FOR SALE—Shallow partly developed Oil and Gas Leases. Plenty of acreage, pipe lines all in. Good market will give option. Satisfy yourself. Address Box E-935, The Oil and Gas Journal, Tulsa, Okla.

FOR LEASE—1,206 acres, Bee County, 13 miles southwest from Pettus, 5 miles west Simms big gasser. Want $1 rental. Lacks & Knight, San Antonio, Tex.

WINKLER County leases and royalties bought and sold, both producing and wildcat. G. C. Dawson, Kermit, Tex. Box 21.

OIL LEASES—Near drilling well. $2 acre. Joiner and other large interests. E. M. Adams, Clarksville, Tex.

ROYALTIES PRODUCTION

Kansas Royalties offsetting Midwest well, Stafford County. Hugoton Gas Royalties. Lists, maps free. Harry Haynes, Grantville, Kans.

OKLAHOMA producing royalties specializing in Oklahoma City Field.
Chester Imes
Petroleum Bldg. Oklahoma City

ROYALTIES on top Major Company core drilled structures. Ellsworth-Barton Arch area. Western Kansas. Write W. C. Hallam, 802 Patterson Bldg., Denver, Colo.

ROYALTY OWNERS—I have CASH for producing royalties in Oklahoma City area. Submit full particulars and price. F. S. Calkins, 417 Security Title Insurance Bldg., Los Angeles, California.

For INCOME AND SPECULATIVE Oil Royalties for Investment, write
SPENCER ROYALTIES CO.
Thompson Bldg., Tulsa, Okla.

ATTENTION BROKERS — Well located, perpetual royalties and long term commercial leases South and West Texas very cheap. Write Oil Scout, P. O. Box 927, Houston, Texas.

ROYALTIES—PRODUCTION

ROYALTIES in the territory of coming big development in Kansas, Stafford, Barton, Ellsworth, Kingman and Stevens Counties, core drilled. Also producing royalties. Special service to brokers. Send for list. James R. Haynes, Grantville, Kans.

JAMES B. McANALLY
Speculative and Investment Royalties
Hunt Building, Tulsa, Okla.
Service to dealers, Oklahoma, Kansas and East Texas.

PRODUCING ROYALTIES under Oklahoma City Wilcox Sand wells paying substantial monthly incomes offered. Prices, potentials, allowables, runs, etc., on request. Your selections or mine. W. E. Cook, 342 Court Arcade, Tulsa, Okla.

PRODUCING ROYALTIES
Specializing in East Texas
John L. Dickson, Box 1037, Tulsa, Okla.

UNUSUAL OPPORTUNITIES
FOR ROYALTY INVESTORS
AND DISTRIBUTORS
THE MERCURY COMPANY
Philtower Building, Tulsa, Oklahoma

FOR SALE

FUEL OIL, crude oil, gasoline, distillate, tank car lots, shipped to any point. Get our prices. East Texas Fuel Oil Co., 208 Isham Bldg., Longview, Texas.

WANTED

WANTED—To lease for sixty days complete core drill outfit. Must be in first class condition. Address Box E-942, The Oil and Gas Journal, Tulsa, Okla.

MAILING LISTS

LIVE MAILNG LISTS
Stockholders' lists of Elliott, Joiner and others in oil royalties, leases and mining. Flory, Worth Bldg., Fort Worth.

1%
ADVERTISING COST!

One advertiser sold $25,000.00 worth of Used Equipment at a cost of less than 1%.

Here's proof in Good Old Dollars and Cents of the reader interest in

The Oil and Gas Journal

CLASSIFIED SECTION

More Optimistic Outlook at Chicago

Notwithstanding Tank Car Markets Are Showing Tendency to Soften, Crude Curtailment Is Encouraging Confidence in Future

By Robert C. Conine
Chicago Bureau, The Oil and Gas Journal, 6 North Michigan Ave.

CHICAGO, Feb. 8.—Although the gasoline tank car markets are displaying a tendency to soften, with the ordinary U. S. Motor grade actually moving down in price for the bulk of the current curtailed movement and lower quotations being heard on increasing quantities of the higher gravities, the anomalous condition exists of a more optimistic outlook. The basis for the more cheerful attitude apparent in Chicago district oil trade circles is the firm conviction generally held that crude overproduction problems are nearing solution, either through concerted action of producers and purchasers alone or with the aid of remedial Federal legislation. The growing support enlisted on the side of advocates of a tax on imported crude oil and refined petroleum products, and current activities in Washington which seek to cause a modification of Federal acts which restrict forms of agreement among commodity producers, are receiving more attention here than the day's marketing troubles. Promised reductions in crude production in Oklahoma and East Texas, and the probability that legal means will be available to continue the East Texas curb in the event of a Federal Court decision adverse to Governor Sterling's martial law enforcement of production cut edicts, gives soundness to the prevailing belief here that the present market weakness will be shortly corrected.

Greater Caution Sellers' Cue

Brokers and distributors of Chicago district, as well as elsewhere, are learning a bitter lesson at a cost of thousands of dollars and their misfortunes should in the future dictate extreme caution in selling material to anyone who offers a prospect of profit. As the week opens a number of Chicago sellers are facing severe financial losses through the failure or imminent failure of resellers and jobbers in Milwaukee, Chicago, Grand Rapids and Cleveland, to mention only the more important points. From one point of view little sympathy is offered and the opinion is expressed that a "weeding out" process is demonstrating the fallacy of price cutting and assuring better conditions for the coming season.

Majors in Price Cutting Role

Sellers in Chicago are somewhat puzzled and uneasy over the action of two major companies in offering gasolines below the ruling spot markets. One of these companies is comparatively a newcomer in the district and its price cutting operations are being most strongly felt in the fighting grade aviation gasoline. The other company has recently confined itself to wholesale business in the district and the gasolines it is offering here are understood to be coming from its Oklahoma refinery. As a result of the first company's activities several of the more important marketers of fighting grade aviation fuel have practically withdrawn from this business and are quoting the nominal markets of 4¾ to 5¼ cents, while most of the large contracts are going at 4 cents to the underselling refiner. Since February 2, the second refiner has quoted the following prices to the trade: 60-62 400, 3⅛ cents; 64-66 390, 3½ cents; 64-66 375, 3¾ cents; 64-66 350, 4 cents, and 68-70 350, 4 cents. No octane specifications are given. However, an Oklahoma refiner is offering 60-62 400, of 58 octane at 3 cents. A North Texas refiner quotes the same price on slightly higher octane number material, but offers no guarantee that the gasoline will not darken after brief exposure to sunlight.

Octane Status Complaints

There are indications that buyers are not convinced that middle octane gasoline actually commands certain published premiums, three-quarters of a cent above the low of U. S. Motor of no octane specifications, and it is reliably reported that some buyers are profiting by neglecting their contracts and trying their hand in the open market. Actually, there is very little movement, either on contract or in the spot markets, in gasolines due to weather conditions as well as to reluctance of buyers to take more than their immediate requirements. Price is still a powerful consideration and at a certain point is sure to overshadow the appeal of antiknock quality. A large number of buyers, who have been content to see the middle octane material advance three-eighths of a cent above the no octane specifications gasoline, now feel that reported demands of refiners for still wider margins between the two grades of gasoline are not justifiable and will result in a general return to the less favored material.

One distributor states his views thus: "We are beginning to think there's something mighty fishy about the way the price differentials between the two octane grades and the low octane grade have widened in the past two weeks. The structure couldn't look more artificial if a hermit had set it up, and I want to tell you that we are not going to stand for it. Some one probably has the idea that the public and the retailers are so sold on antiknock ratings that price is a secondary matter. Up to a certain point that is correct, but if that some one has it figured out that the comparatively small output of antiknock gasoline is a sufficient factor to permit the few with the necessary refining facilities or special crudes to name their own price, that person has forgotten that plain old U. S. Motor and 400 endpoint gasolines will run automobiles."

However, the sentiment expressed above has not been transmitted to all refiners. Saturday one refiner seeking to test the middle octane gasoline markets showed a file of telegrams which came to his inquiry for eight cars of antiknock gasoline. Below 61 octane number the prices were in the U. S. Motor of no octane specifications range, and the order was placed for 63 octane gasoline at 3¾ cents. Lower prices may be obtained with little searching if the buyer is not too particular about color and odor. Most buyers are looking for the higher octane gasoline markets to settle down a trifle as the straightrun situation becomes more insistent.

All are agreed there is far too much straightrun gasoline available, and in spite of repeated warnings the refiners, it is felt, have failed to make a suitable adjustment of their operations to demand. Reports have been verified here of purchases last week in the field of 2½-cent gasoline. Gasoline consumption has been further diminished by heavy snowfall in the district and it is not apparent any conceivable amount of price cutting will have the effect of increasing the volume of sales, unless conditions cause refiners to take an active buying position, a possibility they show no signs of indicating. The situation has been that distributors have been able to buy material at lower prices while they have kept their own quotations to the trade without change. However, the experience has been that a number of distributors eventually hit upon the plan of increasing their gallonage by shaving down their margin of profit, so in a short time all have settled down on a lower price level.

New Arkansas Gasoline

One of the Arkansas refiners operating on special crude has announced it will soon place on the market, through its Chicago distributor, a 60-62 gravity, 400 endpoint gasoline of 70 octane number at three-quarters of a cent above the price of the same material of no octane specifications. Initial production of this gasoline will be five cars a day.

Gasoline Tank Car Prices

As pointed out above there has been a slight easing off in gasoline tank car prices. This weakness is felt to be temporary and the trade is not worried apparently. Prices to resellers have been somewhat erratic, but in view of the demand situation the smallness of the declines indicate strong forces are working constructively. The answer of reforming to the problem of what is to be done with the flood of straightrun gasoline which has practically become a drug on the market is still more or less an abstraction and will remain so until refiners make considerable additions to their refining equipment. Some straightrun gasoline is being run to the cracking units, but not nearly enough to have any appreciable effect in reducing the stocks of the straightrun material. The comparatively small quantity of middle and high octane gasoline points to this conclusion, also.

It is significant that brokers and distributors report they are receiving much fewer inquiries from refiners, and this is taken as an indication the refiners are not, as a whole, under pressure to sell. Monday prices on U. S. Motor grade gasoline of no octane rating were 2¾ to 3 cents, a decline of an eighth of a cent. A similar reduction is noted in quotations on the 60-62 gravity, 400 endpoint gasoline, at 3⅛ to 3⅜ cents. Only in the aviation fighting grade, where the prices for reasons given elsewhere have become nominal for the time, and in the 68-70 gravity, 360 endpoint gasolines, was no change in price noted. The aviation gasoline is quoted by major sellers at 4¾ to 5¼ cents, and the 360 endpoint material is offered at 4⅛ to 4⅜ cents. The 64-66 375 gasoline dropped an eighth of a cent and is quoted at 3¾ to 4 cents. These declines in the higher gravities were in spite of slightly increased demand due to colder weather.

Naphtha Tank Car Markets

The naphtha tank car markets are unchanged this week although several marketers reported a business volume comparable to past seasons when better prices prevailed. V.M.&P. naphtha and petroleum thinner are in favorable demand, as is rubber solvent. A little seasonal pickup in cleaner business may be expected. From the price angle these markets appear to be marking time until there is a betterment in the gasoline markets, according to some observers, although certain important refiners contend the naphtha markets bear no relation to the gasoline markets. The following prices are unchanged from last week: Cleaners' naptha, 5⅝ to 5¾ cents; lacquer diluent, 180 initial, 250 endpoint, and that of 140 initial and 200 endpoint, both 9 to 9¼ cents; rubber solvent, 5¾ to 6¼ cents; Stoddard solvent, 4⅞ to 5⅛ cents; petroleum thinner, 4⅜ to 4⅝ cents; V.M. &P. naphtha, 5¼ to 5½ cents, and petroleum spirits, heavy, 3⅞ to 4¼ cents. Blending naphtha, 50-52 gravity, 450 endpoint, unchanged at 2¾ to 2⅞ cents.

Kerosene Tank Car Markets

The slacking up of kerosene export business is reflected in the sudden loss of strength which has been a feature of the kerosene tank car markets. Several refiners have apparently built up considerable stocks of kerosene and it is generally believed in the district further and more widespread price recessions will be in order unless something occurs to stimulate export business. Both grades of kerosene dropped an eighth of a cent and little movement is reported. The 41-43 water white kerosene is 2½ to 2⅝ cents, and the 42-44 water white material is 2⅝ to 2⅞ cents. Resellers report they have been able to buy kerosene as low as 2¼ cents. Prime white distillate is still holding above 2 cents to the trade.

Gas Oils and Fuel Oils

Monday saw the gas oil and fuel oil markets in a firm position with the exception of two items affected by special circumstances. The materials in demand are low cold test. The 32-36 straw distillate moved down an eighth of a cent to a range of 1¾ to 2⅛ cents, due to competition from a blend of the industrial gas oil and distillate which serves as a No. 3 fuel. The industrial gas oil is in very little demand due to curtailed factory operations and its failure to win over domestic consumers of heating oils.

One of the major refiners in the district has reduced the price of its 28-30 fuel oil from 60 cents to 57½ cents. This is zero material and is practically a gas oil having 190° flash and is ivory in color. This reduction is remarkable in view of the fact this same company is known to be in the market for 28-30 zero fuel oil and is buying all it can pick up. It is pointed out that if the object of this refiner is to buy a lower price material to run his cracking units, the handling charges will more than consume the difference in price for the two materials. Complete information is not available on this activity but it is possible the sales and purchases are being conducted to take advantage of freight differentials in the territory. Considerable material, including heavier zero fuel oils and the gas oils, are said to be handled out of this district at this time from differential points in West Virginia, Ohio and Kentucky. Distributors say they are able to buy these products in southern Illinois at prices below the Group 3 quotations. For instance, one order last week was delivered to a Chicago distributor on 18-22 fuel oil at a price which would net an Oklahoma refiner 15 cents a barrel. The ruling market on 18-22 fuel oil, basis Group 3, is 25 to 30 cents a barrel. The reseller is taking a good profit on the 32-36 zero material in spite of the eighth of a cent decline because he is able, so it is reliably reported, to buy the distillate in the field at as low as 1¼ cents. The 38-40 straw distillate is strong at 2⅛ to 2¼ cents. Prices on other products remain unchanged as follows: 28-30 zero fuel oil, 50 to 60 cents; 22-26 fuel oil, 32½ to 37½ cents, and 18-22 fuel oil. 25 to 30 cents.

Better Tank Wagon Outlook

Recent developments foreshadow improved feeling between independent brokers and distributors and the major companies. The distributors have "buried the hatchet" and have displayed their good will toward a major competitor by placing orders for 200 cars of heating oils. With the prospect of friction being removed the independent sellers are looking forward to a leveling of tank wagon prices which now reflect sharp competition with price cutting as the weapon.

East Coast Refined Products Routine

Gasoline Steady at Refineries Under Fair Buying. Kerosene Market Sags Further. Exporters Watch Chinese Situation

By A. E. Mockler

New York Bureau, The Oil and Gas Journal, Rooms 1919-21, No. 154 Nassau Street

NEW YORK, Feb. 8.—Developments of outstanding importance were lacking in the East Coast refined products situation during the past week, and traders were marking time in all divisions of the markets. The only change of note was a further weakening in the position of spot kerosene, with the posted price coming in for shading in some instances. The weather was less favorable from the standpoint of gasoline consumption, but notwithstanding, East Coast refiners reported their gallonage was holding up exceptionally well for this time of year, particularly on the higher antiknock grades.

Exporting companies are watching the Chinese situation with considerable anxiety. Not only is orderly distribution in China adversely affected by military operations in various parts of that country, but the Shanghai bulk plants of several of the large companies have come under fire several times. While an early adjustment of the situation is looked for, it is feared that normal movement of refined products into consuming channels in China will remain disrupted for some time.

With a disappointing year behind them industrial sales departments of the large integrated companies are aggressively pressing their sales campaigns for 1932. Industrial consumers, who in former years held to a policy of contracting their requirements six months to a year in advance, are now substantially shortening their contract coverage, and are relying upon spot market purchases to fill their needs in many instances. Restricted manufacturing operations in many lines of industry have materially curtailed lubricating oil consumption and has intensified competition among suppliers. It is interesting to note, however, that this competition in most instances is taking the form of stressing quality improvements, rather than relying upon the uneconomic price cutting which gasoline marketing divisions have found such a two-edged weapon. The normal decline in industrial lub consumption incidental to curtailment in industry has been accentuated by improvements in engine and motor technique tending to reduce lubricating requirements. From the refiners' standpoint, the lub oil situation has continued complicated due to the dearth of statistics available on production, consumption, and stocks of individual types of lubricating oils, and for this reason lub oil production schedules must be carefully gauged.

Reduction in consumption of automobile lubricants, however, was a normal development in view of the action of leading automobile manufacturers stressing the improvements in motor oiling systems, requiring much less frequent replacement of worn out oil.

Marine Oils

Another division of the market which has passed through an unfavorable year and which sees little likelihood for improvement during the first half of 1932 is the marine division. Consumption of Diesel and bunker "C" oils and various marine lubricating specialties have all been seriously affected by current depression in shipping circles, which has taken the form of laying up of a large number of vessels and more infrequent runs for those remaining in service. Inactivity in shipping has been particularly marked in the tanker field, and with most oil companies having at least a part of their marine equipment laid up idle, normal outlets for marine petroleum products have suffered in consequence.

In addition to the lessened consumption resulting from the above enumerated conditions, foreign competition at European ports has been a potent factor in cutting into the gallonage of American refiners.

Refinery Gasoline

Demand has continued to center largely on U. S. Motor gasoline of 65 octane number and higher, with posted prices remaining unchanged at 6 to 6½ cents, in tank car lots, at refinery terminals. Jobbing demand has swung over to a large extent to the higher knock rating motor fuel, although gasoline of under 65 octane number continues to meet with a good demand, and is furnishing plenty of "ammunition" for price cutters.

The posted market for gasoline of no specified octane rating is 5¾ cents in the local tank car market, but business has been reported done at 5½ cents, and in view of reports of depressed markets for this type of gasoline in the Mid-Continent area, continued softness in the price basis is looked for locally.

The recent increase in the posted price for the higher octane rating motor fuel has strengthened the confidence of jobbers are ordering forward stocks freely, bers in the market position, and distributkeeping their storage filled close to capacity in most instances, to take advantage of the spurts in consumption which have come periodically this winter along with the spells of unseasonably mild weather.

Gasoline production continues along curtailed lines at East Coast refineries, and it is expected the major companies will hold down output to a minimum until well along into the spring. Substantial progress has been made in liquidating surplus stocks, but current refinery holdings are still deemed overly large in some quarters, and it appears evident that determined efforts will be made to take the East Coast market into the heavy consuming season with the smallest surplus stocks on record in recent years.

Tank Wagon Gasoline

The most important development of the week, from the standpoint of the local trade, was the announcement that the Republican majority in the New York State Legislature has decided to materially adjust the tax program submitted by Governor Roosevelt, and that the major revision will consist in scaling the proposed rate of state gasoline tax down from 4 to 3 cents, which will mean a 1-cent advance over the current rate. Local petroleum interests have organized, however, and will make a determined effort to prevent any increase in the gasoline tax rate, although their chances of success appear rather remote at this time.

While last week's gallonage did not come up to that of the previous week, due largely to unfavorable weather in some sections, there was nevertheless a continued good movement into consuming channels, and aggregate gallonage since the first of the year has exceeded that for the comparable period of 1931.

There were no price changes reported in tank wagon or service station levels, but price cutting continues in many parts of the territory, and while "price wars" have been pretty well localized, schedules of leading marketers nevertheless show considerable irregularity.

The question of third grades of gasoline has been pretty well shelved during the winter, largely on the theory that motorists would not be favorably disposed towards this type of motor fuel during the cold weather. The advent of spring is expected to bring this problem once more to the fore in eastern marketing circles, and major factors are making plans to combat this type of competition. With gasoline of no specific octane number virtually a drug on the market in Mid-Continent refining territory, and business reported done as low as 2¾ cents at the refineries, it is evident there will be plentiful supplies of third grade gasoline for distribution during the summer. This type of motor fuel gives fairly satisfactory operation during the warm weather and this factor, in keeping with the trend toward greater economy in automobile operation on the part of many motorists affected by current economic conditions, is expected to make for widespread acceptance of the third grades this summer. A number of the major companies have not yet adopted a fixed policy with respect to the retailing of third grades, and their decision in this respect will arouse considerable trade interest.

Kerosene

Continued selling pressure has kept the market in easy position, and the posted price of 5½ cents for 41-43 water white in tank car lots at the refineries is being freely shaded, with 5¼ cents the average going price in spot sales.

Jobbers, caught with large stocks on hand in a declining market and with greatly lessened consuming demand, have practically withdrawn from the market for the time being, and tank car movement out of the refineries in this district has slackened off to a great extent.

No changes have developed in the tank wagon kerosene situation. The demand in the New England states showed some revival, under the stimulus of colder weather, but gallonage in the remainder of the territory continues light.

Gas Oil

Limited volume of spot trading kept the gas oil market in quiet position, and refiners were quoting 28 gravity plus oil at 3½ to 4 cents in tank car lots at refineries. Contract withdrawals were holding up fairly well, but new business was slack.

Colder weather during the latter part of the week tended to stimulate the inquiry for low grade gas oils, which were being shipped out on domestic furnace oil contracts.

Wax

Continued quiet in domestic markets was reported locally, and the market was still somewhat irregular, with the undertone inclined to softness. While more export inquiry had come into the market, the actual volume of new business on wax, both crude scale and refined, for shipment abroad did not come up to expectations.

Fuel Oil

Contract movement of bunker "C" fuel oil was steady, and refiners continued to post 60 cents per barrel in bulk, f.o.b. refinery terminals. While the market position here appeared to be somewhat improved, continued low prices in California and at the Gulf are militating against early increase in East Coast quotations, it is felt, and the general market situation will have to show drastic improvement before the market position in this area strengthens to the point where higher prices will be possible.

The large integrated companies operating abroad report that Rumania continues an important factor at bunkering centers on the Continent, and the necessity of meeting this competition is expected to hold prices down at East Coast bunkering ports. Rumania's export markeing activities, however, are becoming better controlled and there is some possibility of improvement in the price basis in European markets.

Industrial movement of fuel oil has been well maintained, and the colder weather has stimulated consumption of heavy oils used for heating purposes.

Diesel Oil

Gallonage in the Diesel oil division of the market has not suffered as severely from the depression in shipping circles as has been the case with the heavier bunker oils, and refiners reported a continued good movement in local territory. The posted price remains unchanged at $1.30 per barrel in bulk at terminals.

Industrial consumption of Diesel oil is recording steady gains, and it is felt this division of the market will attain increasing importance as industrial activity speeds up in various lines. Heavy oil sales departments of the leading refining companies are devoting increasing attention to their domestic sales, and considerable contract business for shore deliveries is now carried on the bboks of the major companies.

Lubs

Volume continued held down to routine quantities in the cylinder oil markets, and an unsettled undertone ruled. Spot 650 steam refined was in slightly smaller supply, and sellers advanced their quotations one-half cent to 22½ to 23 cents. Other grades, however, were less firm and 600 flash was offered at 23 to 24 cents, off 1 cent, with 630 flash showing a similar decline at a range of 26 to 27 cents.

Pennsylvania refiners are reported to have curtailed their production further in an effort to stabilize their markets, but refinery stocks of some grades are apparently still overly large and some price shading is still possible. Refiners, however, evidently look for a stronger market, and bids for substantial quantities for later delivery at close to current price levels have been turned down.

Increasing activity in a number of trades, particularly the textile industry, has made for more demand for red and pale oils, and refiners reported some increase in gallonage on both contract deliveries and on the spot position. Quotations for these oils remain unchanged.

Petrolatum

With consuming manufacturers back in the market for the white grades in larger volume, the market has developed a firmer tone, and sellers advanced their quotation on snow white one-eighth cent per pound to 6¾ cents. The market for the amber grades continued soft, and extra amber was offered in the local market at 2⅝ cents per pound, a reduction of one-eighth cent from the previous level.

Buyers' stocks of petrolatum are reported at unusually low levels, and sellers look for a sustained buying movement during the spring. This anticipated increase in volume, coupled with restricted production, is expected to make for higher price levels, and refiners are not anxious to book petrolatum for delivery later on at present price levels.

Export Market

Foreign demand for both gasoline and kerosene continued at a standstill in the

Gulf market, and posted quotations were unchanged on both products. Considerable activity reported in the Black Sea market indicates Russia is getting a considerable amount of business from Continental Europe, while shipments from Constanza also continue quite large.

The decision of the British government to impose a 10 per cent import duty on practically all commodities (presumably affecting gasoline and other refined petroleum) effective March 1, complicates the British market situation somewhat.

American export operators who have been doing considerable business in crude and products in the German market during recent years are also concerned over reports of a pending gasoline monopoly in that country and regulation of petroleum imports on a quota basis.

These developments, in connection with the close agreement recently arrived at between Rumanian petroleum interests and the French government, are expected to further unfavorably affect world demand for American refined products.

There were no transactions of any sizable amount reported in either Mexican or Venezuelan crude, and quotations were without change.

Reports in local export circles indicate that Gulf sellers are maintaining their posted prices on gasoline and kerosene, in the face of lack of demand, in the belief that crude petroleum quotations are due for an early advance, with accompanying increases in refined products prices at the refineries.

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended January 30 totaled 1,615,000 bbls., a daily average of 230,714 bbls., compared with 1,690,000 bbls., a daily average of 241,429 bbls. for the previous week, and a daily average of 216,857 bbls. for the four weeks ended January 30. Details follow:

(Barrels of 42 gallons)

At Atlantic Coast ports—	Bbls.
Baltimore	39,000
Boston	165,000
New York	1,056,000
Philadelphia	65,000
Others	290,000
Total	1,615,000
At Gulf Coast ports—	
All ports	none
At Atlantic and Gulf Coast ports—	
Total	1,615,000
Daily average	230,714
Daily average four weeks	216,857

Distribution of total imports is as follows:

	Bbls.
Crude	959,000
Gasoline	206,000
Gas oil	2,000
Fuel oil	448,000

Petroleum Exports

There were no developments of outstanding importance in the local export market situation. While a number of inquiries were in the market, the volume of new business did not come up to expectations, and foreign buyers were believed to be further deferring actual purchases pending further stabilization of the price structure.

The following table shows refined petroleum exports from the local port for the past three weeks (all figures in gallons unless otherwise noted):

	Week ended		
	Jan. 30	Jan. 23	Jan. 16
Gasoline	52,000	72,000	2,000
Naphtha	350,000	135,000	.....
Kerosene	55,000	65,000	65,000
Fuel oil	11,000	5,000	5,000
Lub oil	805,000	640,000	1,250,000
Pet., refined	340,000	1,050,000	30,000
	Pounds		
Petrolatum	3,000	100,000	.....
Paraffin wax	1,075,000	4,390,000	2,475,000
Refined	245,000	390,000	390,000
Scale	50,000	285,000	300,000
Lub grease	415,000	829,000	935,000

California Oil Receipts

Receipts of California crude and refined petroleum at Atlantic ports during the week ended January 30 totaled 120,000 bbls., a daily average of 17,143 bbls., against 401,000 bbls., a daily average of 57,286 bbls. during the previous week, and daily average receipts of 29,929 bbls. at Atlantic and Gulf Coast ports for the four weeks ended January 30. There were no receipts at the Gulf during the week ended January 30, the week's receipts on the Atlantic Coast going to scattered minor ports and consisting entirely of gasoline.

There was but one cargo reported cleared from California for the Atlantic Coast or Gulf ports during the week, 129,500 bbls. of gasoline on the tanker Tamiahua (Richfield Oil Co.) consigned to New York.

ROCKY MOUNTAIN AREA

(Continued from Page 42)

this district to The Texas Company following the recent taking over of the properties of the subsidiary by the parent company in the Rocky Mountain area.

Arapahoe County

MacDeb Drilling Co.'s No. 1 Fitzsimmons, NE Section 7-4s-66, near Aurora, is bottomed in sandy shale at 5,911 feet and fishing for bailer. A hold has been secured on the bailer and it is thought it will be out of the hole shortly. At this depth it has a good show of gas and before the bailer was lost brought up about a quart of green oil each time it was run.

Adams County

Hills Dome Lease Development Co.'s No. 1 Hills, SE cor. Section 27-3s-64, Watkins district, is preparing to resume at 3,790 feet. At this depth a contract was made with the Siler Drilling Co. to carry the hole to 6,000 feet and a change over to fuel oil from coal was made in the equipment. However, delivery was not secured on a contract for 1,000 bbls. of fuel oil and another agreement was made with the Mountain States Refining Co. for a supply from its plant at Orchard. The oil will be trucked from Orchard to the well.

Jefferson County

Ruby Hill Oil & Gas Co.'s No. 1 Braden, SE cor. Section 24-4s-69, near Denver, is shut down at 4,106 feet.

Larimer County

The Colorado Producers, Inc.'s No. 1 Hogsett, NE SE NE Section 20-4n-69, Berthoud district, spudded and shut down. Same company's No. 1 Foster-Motz, SW SE SE Section 17-4n-69, cemented cave at 1,435 feet and shut down.

Mayer Oil Co.'s No. 1 Reed, SW cor. NW Section 28-4n-69, is shut down at 2,725 feet with underreamer in the hole.

Archuleta County

Oil City Petroleum Co.'s No. 1 Fitzhugh, NW SE SW Section 34-33n-1e, Chromo Dome, which last week was reported showing for 500,000 feet of gas per day, 10 inches in the Lakota sand at 670 feet, is moving in a string of 6⅝-inch and will run same and set with packer on top of the sand. Drillers report the gas has increased to 1,000,000 feet and is accompanied by a show of very high gravity amber colored oil. The Muddy and Danota sands had shows of oil and water. The 8¼-inch is frozen at 613 feet and water is coming from behind the pipe. A recent report places the location about three-fourths of a mile west of the axis of the anticline which shows dips of 41 to 45 degrees on the east side and 5 to 15 degrees on the west side. The Belmont Oil Co., which is interested in this well, has acquired a block of leases on the nearby Chromo Dome and will be in charge of a joint deep test to be started at an early date, according to officials.

Park County

South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, near Jefferson, is drilling out plug after cementing cave at 2,680 feet. South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, is shut down at 2,442 feet.

Rio Blanco County

California Co.'s No. 1 California-Raven, NW SE Section 30-2n-102, Rangely Dome, is drilling at 3,584 feet. Magnolia Petroleum Co.'s No. 1 Maddock, C NW SE Section 9-2s-96, Piceance Creek, is shut in at 2,936 feet until weather conditions improve. At this depth it gauged 13,000,000 feet of gas from a sand in the Green River formation.

La Plata County

J. W. Irwin & Co.'s No. 1 Doescher, SW cor. NW Section 29-33-13, Dry Mesa, is resuming at 3,171 feet after standardizing. Phipps and others' No. 1, SW NW Section 9-33-13, is shut down at 542 feet.

Moffat County

Ohio Oil Co.'s No. 1 Bogenschultz, C SE SE Section 9-6n-9, Craig Dome, which encountered gas in a stray sand in the upper Mesa Verde at a total depth of 1,754 feet, cemented 12½-inch on top of the sand at 1,734 feet to shut off water from upper horizons and is waiting.

WYOMING

Major producers in the Salt Creek Field held a conference at Casper with representatives of the U. S. Geological Survey at which action was taken urging the Secretary of the Interior to rescind a recent order requiring that oil be gauged on the basis of 100 per cent of tank capacity with deductions for the actual amount of basic sediment in excess of one-half of 1 per cent. The strapping basis of 98 per cent prevailing in the Mid-Continent Field was in effect prior to the issuance of the order, and since Mid-Continent posted prices prevail in Salt Creek, it was held the allowances should be the same.

Natrona County

Midwest Refining Co.'s No. 11, SE NW NW Section 32-34-77, Geary Dome, is drilling at 5,960 feet in blue shale and bentonite.

S. H. Keoughan and others' test on the Midway Dome, for which derrick was erected by Midwest Refining Co. before a transfer of interests took place, is in the C SE SE Section 14-35-79.

Park County

Midwest Refining Co.'s No. 4 Rosenberg, NE NW NE Section 26-58-98, Frannie Dome, is drilling at 2,244 feet. This location is approximately one-third mile northwest of No. 24 Rosenberg, which made 500 bbls. per day on the pump. It is running about 100 feet lower than the other well, and should reach the Embar under 3,200 feet.

Big Horn County

Lovell Dome Association has made a location for No. 1 Sheets, SE SE Section 9-55-96. Crystal Oil & Refining Co.'s No. 1 Empire State, NW SW SW Section 5-54-93, Crystal Creek, is bottomed at 1,259 feet and setting pipe for a formation shutoff.

Washakie County

Ohio Oil Co.'s No. 1 Strothers, SW SE NW Section 19-45-92, Neiber Dome, after plugging back to 7,465 feet to test a sand in the Frontier and finding nothing, again plugged back and is testing a sand in the Frontier at 7,130 feet.

Carbon County

Lost Soldier Producing Co.'s No. 1, NE NE Section 25-56-88, Mahoney Dome (Scupbach and others), is resuming its fishing job at 3,772 feet. It is bottomed in the top of the Sundance where it has shows of oil and gas, but has been de-

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Converse County

John Ackard's No. 1 Morton, SE cor. Section 24-33-72, 6 miles north of Douglas, is drilling at 1,810 feet.

MONTANA

Carbon County

Carbon Oil & Gas Co.'s No. 1 McMinn, NW SW SW Section 7-7s-22, Dry Creek Dome, one-third mile south of its No. 1 Armstrong, is rigging up.

Ohio Oil Co.'s No. 2 Montana Industrial, C NW SE Section 11-7s-21, is drilling at 1,012 feet, and its No. 1 Kutchinski, NW SE NE Section 15-7s-22, Golden Dome, is waiting for power connections after changing over to rotary at 335 feet.

McIntyre and others' No. 1 Burger, SW cor. NW Section 24-6s-23, to the northeast of Dry Creek, is moving in a machine.

Toole County

Cosmos Petroleum, Inc.'s No. 3 Iowa Holding, NW NE SE Section 2-37-4w, Border Field, made 60 bbls. initial from sand at 2,522-47 feet.

Gallatin County

Montana Gas & Petroleum Corp.'s No. 1 Adams, SE cor. Section 35-2n-1e, Three Forks district, is drilling below 650 feet.

Cascade County

Charles Merz and others' No. 1 Sheffelt, SE NW Section 4-21-4e, Black Horse Lake, is drilling at 1,000 feet.

Glacier County

Fulton Petroleum Co.'s No. 1 Blackfeet, SW NE NE Section 28-36-12w, Milk River district, is drilling at 2,875 feet. Progress on this well is slow owing to frequent stops to cement cavey ground.

Liberty County

California Co.'s No. 1 George Ross, NE SE NE Section 3-33-6e, Utopia district, is drilling at 2,440 feet after underreaming the 10-inch to set at 2,425 feet to shut off water in sand at 2,402-10 feet.

UTAH

Utah Southern Oil Co.'s No. 1 Balsey, C NE NE Section 31-23-21, Grand County, cemented hole back to 5,200 feet and shut down. Bit was lost at 5,300 feet.

Pipe Line Runs

Average daily pipe line runs for the week ended February 6:

WYOMING	
Salt Creek	21,040
Badger Basin	50
Big Muddy	1,690
Byron Garland	1,270
Greybull	10
Dallas-Derby	130
Elk Basin	560
Ferris	20
Frannie	20
Grass Creek	2,030
Hamilton Dome	770
Hudson	420
LaBarge	1,080
Lance Creek	100
Lost Soldier	2,750
Midway	.....
Osage	990
Pilot Butte	40
Rock River	1,640
Poison Spider	260
Teapot	20
Total Wyoming	34,890
MONTANA	
Buckley-Border	630
Cat Creek	920
Dry Creek	10
Kevin-Sunburst	4,090
Lake Basin	70
Pondera	1,590
Total Montana	7,310
COLORADO	
Florence	320
Fort Collins	930
Iles	820
Moffat	770
Orchard	460
Rangely	20
Tow Creek	320
Total Colorado	3,640
NEW MEXICO	
Rattlesnake	500
Hogback	200
Table Mesa	75
Artesia	400
Cap Rock	500
Hobbs	30,025
Jal	856
Lea City	2,010
Eunice	400
Texas Pacific	100
Total New Mexico	35,066
Total Rocky Mountain area	80,906
Total previous week	79,696
Difference	1,210

OKLAHOMA FIELDS

(Continued from Page 33)

although the most consistent production in the Greater Seminole area is found in the Wilcox sand. Considerable production has also been developed from the Simpson sand in the Greater Seminole area.

The only disappointing outlook for the area is the dry hole that was drilled to the Wilcox sand 1¼ miles southeast of the discovery well. The dry hole was Mid-Continent Petroleum Corp.'s No. 1 Farmer, SE cor. SW NW, Section 2-6-4, which found water in the Simpson and Wilcox sands. The total depth of the test was 4,431 feet. It is being plugged back to test a showing of oil found in the Hunton lime and has cemented casing at 4,156 feet.

Carr City Disappoints

The Carr City area which was the second most active area in the State from a development standpoint is proving a disappointment to operators. Practically all the wells are finding water with the oil production. Two of the recent tests were shot but are showing small increases. Amerada Petroleum Corp.'s No. 4 L. Tiger, SE cor. NW SE, Section 3-8-5, was shot in the Wilcox sand at 4,146-60 feet and swabbed 105 bbls. in four hours. Prairie Oil & Gas Co.'s No. 3 Hassman, NW cor. SE NE, Section 3-8-5, swabbed 130 bbls. in three hours after a shot in the Wilcox sand at 4,181-4,202 feet.

Indian Land Lease Sale

Indian oil and gas leases sold at the Indian Agency at Muskogee last week, brought better prices than the previous sale, indicating that the oil and gas companies are becoming more interested in future developments.

There were 27 tracts sold out of the total of 82 offered. Those that were sold average $2.01 an acre or a total of $3,717.68 for a total of 1,600 acres. A total of 82 leases comprising of 6,192 acres was offered at the auction.

The top price was paid by A. D. Kennedy, of Okmulgee, for a lease on the W. Yardy tract, W half SE, Section 1-12-13, Okmulgee County. The price paid was $7.50 an acre for the 80-acre lease. This lease is located about 5 miles from the recently completed well of W. B. Pine, in Section 6-12-13, which is believed to have opened a new Wilcox sand pool.

Two tracts in Section 20-26-20, in Craig County, were purchased by G. W. Sharon, for 50 cents an acre.

Block in Comanche County

A block of acreage is being assembled in the southeastern part of Comanche County by F. Lukenbill. The block centers around the NW, Section 5-1-9w, and a well may be drilled in the northwest corner of the section to the 1,400 or 1,500-foot horizon. Several dry holes have been completed in the vicinity, all finding oil and gas showings at those depths.

North of the Josey Pool, in Okfuskee County, in the eastern part of the State, a seismograph party has been working during the last few weeks. Part of the work has been in and around the Keaton-Gold Pool and the Dixie Pool. There are now four wells in the Keaton-Gold Pool, producing from the Dutcher sand. The seismograph has been working in Sections 7 and 18-12-11, and in Sections 12 and 13-12-10, all in Okfuskee County.

The Carter Oil Co.'s No. 1 L. Lynn, C SW SE NE Section 31-1s-2w, 2 miles southeast of the Tatums Field in Carter County, in the southern part of the State, has logged several showings of oil and was still drilling. The log of the test shows sand and shales at 1,720-23 feet, with oil showings, 1,759-70 feet, 1,816-29 feet. The last showing was found at 1,852 feet in sand.

The Conservation Pool, in northern Pontotoc County, which became active after the Barnsdall Oil Co.'s No. 1 Hart, was completed for 150 bbls. a day, is one of the busy areas in the State. The Edna Marie Oil Co.'s No. 1 Walker, SW cor. NE Section 22-5-6, found oil in a stray sand at 1,510-27 feet, and found 1,500,000 feet of gas a day in sand at 1,583-86 feet. Both of these showings are above the regular producing sand found in other wells in the field.

Finished as Gas Well

Oklahoma's deepest test and also the deepest in the United States is being completed as a gas well. The well is Mid-Kansas Oil & Gas Co. and Ramsey Petroleum Corp.'s No. 6 Preston-Culp, NW cor. NE Section 6-5-9w, in the Cement Pool, Caddo County, and was drilled a total depth of 10,079½ feet. It was plugged back to several horizons and tested but none was considered commercial until it was plugged back to 6,040-80 feet, where it made 10,000,000 feet of gas and some water. The operators choked the flow of gas to 3,000,000 feet of clean gas.

Seminole Production

The production from the Greater Seminole area for the week ending February 6 was approximately 131,835 bbls. a day. The Seminole Field, which includes the first 12 pools listed below, averaged 95,515 bbls.

Pool—	Bbls.
Little River	16,970
East Little River	4,440
Carr City	9,975
Maud	2,030
Mission	5,970
Bowlegs	10,565
Earlsboro	11,370
South Earlsboro	1,805
East Earlsboro	9,780
Seminole	18,525
East Seminole	940
Searight	3,145
Total	95,515
Allen	8,125
Asher	620
Wanette	2,435
Konawa	4,485
Sasakwa	1,735
St. Louis-Pearson	18,920
Total	131,835

Creek County

A. A. Bailey Oil & Gas Co. has the rig up for No. 2 Weaver "C," SW cor. NW SW Section 18-19-9. F. R. Billingslea made location for No. 2 Bissett, NW cor. SE NW Section 22-15-8. Gled Oil Co.'s No. 3 Hollingsworth, SE cor. Section 20-19-9, has been completed for 150 bbls. in the Skinner sand at 2,133-73 feet. McCurry and others' No. 1-A Watkins, SW cor. NE SW Section 28-17-11, made 30 bbls. in Red Fork sand at 1,666-97 feet. F. R. Billingslea and others' No. 2 Wayman "A," SE cor. NW NW Section 22-15-8, has been completed for 140 bbls. in Bartlesville sand at 2,867-79 feet. C. G. Tibbins' No. 3 Bartlett, SE cor. SW NW Section 18-14-9, swabbed 40 bbls. from Prue sand at 2,305-37 feet.

Hughes County

George B. Orr staked location for No. 1 Roy, NW cor. NE NW Section 15-7-8.

Love County

Batson, Starritt and Autrey's No. 1 Cross, NE cor. NW NE Section 27-6s-2 is dry and abandoned at 1,651 feet.

Marshall County

C. Dillingham and M. A. Neff's No. 1 Franklin, NW cor. NE SW Section 33-6s-7, is moving in. F. H. & E. Oil Co.'s No. 1 Byrd, SE cor. NE Section 8-8s-6, is a machine.

Muskogee County

Aggas Drilling Co.'s No. 1 D. McDaniel, SE cor. Section 33-16-15, is spudding. Mack Drilling Co. moved a machine in for No. 7 D. Richards, NE cor. SE NE Section 33-16-15. R. D. Hash and others' No. 1 Richards, CNL NW SW Section 34-16-15, is a machine. Mack Drilling Co.'s No. 1-A Richards, NW cor. NE SW Section 34-16-15, has been abandoned at 1,196 feet. J. H. McDonald and others' No. 4-A Durant, NE cor. NW NE NE Section 16-14-18, is a dry hole at 1,621 feet.

Oklahoma County

T. B. Slick Estate made location for No. 6 Terminal, NE cor. SW Section 3-11-3w, Oklahoma City Pool. Scott and others' No. 1 Burss, NW cor. SW SW Section 2-11-3w, has been completed for 508 bbls. in sand topped at 6,248 feet, total depth 6,485 feet. T. B. Slick Estate's No. 4 Terminal, NE cor. SE SW NW Section 3-11-3w, made 7,145 bbls. in six hours from Wilcox sand at 6,360-6,481 feet, total depth 6,482 feet. No. 5 Terminal, NE cor. SW SW NW Section 3-11-3w, topped Wilcox sand at 6,365 feet, drilled to 6,513 feet and made 9,465 bbls. in eight hours.

Okmulgee County

Babcock Brothers' No. 3 J. Harris, CNL SW NW Section 1-14-14, has been completed for 30 bbls. in sand at 1,127-41 feet.

Pittsburg County

Midwestern Oil & Gas Co.'s No. 3 Mattocks, CEL W half SW NE Section 8-7-18, has been completed for 1,000,000 feet of gas in sand at 1,863-2,123 feet.

Pontotoc County

Dickson Petroleum Corp. has a machine on the location for No. 1 Jackson, SW cor. Section 22-5-6. Barnsdall Oil Co. and others' No. 2 Hart, SW cor. NW NW Section 27-5-6, is a rig.

Pottawatomie County

Carter Oil Co. and others' No. 1 Monnet, SW cor. Section 35-7-4, swabbed and flowed 927 bbls. from Simpson Dolomite at 4,230-60 feet.

Seminole County

Jarvis & Holm's No. 2 Fish, SE cor. NW NE Section 30-7-8, is a rig being built.

Stephens County

George Pace and others' No. 3 Allen, NW cor. SE SE NE Section 3-2s-8w, is a rig. Dun-Mar Oil Co. has the rig on the ground for No. 1 Dunmar, NW cor. NE NE Section 11-2s-8w. Continental Oil Co.'s No. 1 Dare, NE cor. SW SE Section 2-2s-8w, has been completed for 8,500,000 feet of gas in sand at 1,433-38 feet. Hydrick & Hickman's No. 1 Andrews, SW cor. NW SW SW Section 5-2s-7w, is dry and abandoned at 2,811 feet.

Tulsa County

Holmes Drilling Co. moved a machine in for No. 1 Cook, CNL NE SW Section 7-19-10.

NORTH AND WEST TEXAS

(Continued from Page 30)

been announced. This will be another interesting deep test for the county.

PANHANDLE DISTRICT

There were four locations staked in this district during the week, one in Briscoe, one in Carson and two in Moore County. The location in Briscoe County is the Humble Oil & Refining Co.'s on the C. Adair estate in Section 7, Block G-6, G.&A. Survey, on a 12,000-acre block in the northwestern part of the county. It is to go to 5,000 feet and is located on a surface structure. This is the first activity recorded for this county for many months, and will be interesting because it is to be a remote wildcat test, and because of the proposed depth.

There was one completion in Carson and three reported for Gray County during the week.

COMPLETIONS IN NORTH TEXAS

Archer County

Deep Oil Development Co.'s No. 3 Wilson, oil sand 2,251-64 feet, initial production 103 bbls., total depth 2,264 feet. George L. Kelley's No. 1 Nichols, dry and abandoned, total depth 1,202 feet. Perkins and Cullum's No. 2 Falls, sandy lime 1,115-40 feet, shot 100 quarts, initial production 75 bbls., total depth 1,140 feet; No. 3 Falls, sandy lime 1,109-31 feet, shot 70 quarts, initial production 60 bbls., total depth 1,131 feet; No. 4 Falls, sandy lime 1,112-31 feet, shot 80 quarts, initial production 70 bbls., total depth 1,131 feet; No. 5 Falls, sandy lime 1,112-15 feet, shot 70 quarts, put on pump. Schultz and Weaver's No. 7 Green, sandy lime 1,118-34 feet, shot 80 quarts, initial production 30 bbls., total depth 1,134 feet.

Montague County

Bridwell Oil Co.'s No. 1 Tucker, oil sand 1,189-98 and 1,234-48 feet, estimated 100 bbls., put on pump, total depth 1,249 feet.

Wichita County

Culbertson Co.'s No. 73 Waggoner Brothers, dry and abandoned, total depth 1,944 feet. W. R. Fullerton's No. 9 Foster Allen, location temporarily abandoned. Jeffers Gilchrist and others' No. 1 Dewey Hobson, dry and abandoned, total depth 1,000 feet. Holbrook and Wood's No. 1 Sam Kelley, dry and abandoned, total depth 837 feet. George Proctor's No. 1 Fostern Allen, dry and abandoned, total

depth 642 feet. United Producers Co.'s No. 4 Allen Kemp, dry and abandoned, total depth 1,832 feet.

Young County

Brand and Seaberry's No. 1 Cullers, oil sand 567-70 feet, estimated 40 bbls. put on pump, total depth 570 feet. M. D. Goldsmith's No. 1 Dunagan, oil sand 938-44 feet, estimated 60 bbls. put on pump. King Royalty Co.'s No. 35 Larimore, oil sand 692-702 feet, initial production 438 bbls., total depth 702 feet. F. L. Roden's No. 1 Lowe, temporarily abandoned, total depth 310 feet. The Texas Company and McKanna's No. 7 Jeffery, oil sand 732-52 feet, initial production 78 bbls., total depth 732 feet. United Producers Co.'s No. 4 Larimore, junked and abandoned, total depth 698 feet. D. L. Wolf's No. 1 D. L. Wolf, oil sand 879-883 feet, initial production 20 bbls., total depth 883 feet. Wooten and Reed's No. 2 V. Swain, dry and abandoned, total depth 755 feet. Christie Brothers' No. 2 McLaren, oil sand 2,582-98 feet, shot 5 and 10 quarts, initial production 20 bbls., total depth 2,598 feet. Long and Wolf's No. 3 Williams, oil sand 2,495-2,552 feet, initial production 55 bbls. flowing, total depth 2,552 feet.

COMPLETIONS IN PANHANDLE DISTRICT

Carson County

Texoma Natural Gas Co.'s No. 1 Burnett, junked and abandoned, total depth 865 feet.

Gray County

Skelly Oil Co.'s No. 5 Jackson, drilled deeper from 3,055 feet, initial production 120 bbls., total depth 3,159 feet. Smith and Ash's No. 3 Morse, shot 360 quarts 2,619-2,730 feet, initial production 150 bbls., total depth 2,733 feet. The Texas Company's No. 4 Williams, pay 2,855-60 feet, swabbed 200 bbls. after being deepened from 2,838 feet, total depth 2,863 feet.

WEST TEXAS COMPLETIONS

Pecos County

Corvette Oil Corp.'s No. 7 H. Monroe, dry and abandoned, total depth 615 feet.

Ward County

Barnsdall Oil Co.'s N.o 1 Jim Henry, top pay 2,452-54 feet, increases 2,460-69-79 feet, initial production 210 bbls. per day, flowing through 2-inch tubing, total depth 2,500 feet.

Winkler County

Lion Oil Refining Co.'s No. 6 Grisham-Hunter (recompleted) drilled deeper from 2,588 feet, increase in gas 2,928 feet, initial production 30 bbls. oil per day, plus estimated 4,000 bbls. water; was making 20 bbls. oil per day, total depth 3,110 feet.

EAST TEXAS FIELDS

(Continued from Page 26)

3,649 feet. Stanolind Oil & Gas Co.'s No. 5 C. O. Christian, top sand 3,646 feet, initial production 100 bbls. per hour through 2-inch tubing choke, total depth 3,648 feet. Tulsa Oil Co.'s No. 1 J. R. Irion, top sand 3,804 feet, initial production 100 bbls. in three hours through three-fourths-inch tubing choke, total depth 3,804 feet. Blackwell Oil & Gas Co.'s No. 5 Samp Stone, top sand 3,648 feet, initial production 150 bbls. per hour through open tubing, total depth 3,670 feet. Droopleman Development Co.'s No. 4 F. J. Cox, top sand 3,686 feet, initial production 78 bbls. per hour through tubing, total depth 3,736 feet.

East Shore Oil Co.'s No. 3 Fox, top sand 3,664 feet, initial production 17½ bbls. in one-fourth hour through tubing, total depth 3,682 feet. Stewart and Duffy's No. 1 Florence Gibson, top sand 3,842 feet, initial production 25 bbls. in one-fourth hour through three-fourths-inch tubing choke, total depth 3,844 feet. Golding and Murchinson's No. 5 Fair, top sand 3,610 feet, initial production 168 bbls. per hour through open tubing, total depth 3,631 feet.

Humble Oil & Refining Co.'s No. 8 J. E. Glover, top sand 3,727 feet, initial production 50 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,801 feet; No. 1-B H. A. Piercy, top sand 3,792 feet, initial production 57 bbls. in one-half hour through three-quarters-inch tubing choke, total depth 3,730 feet; No. 2 E. S. Thrash, top sand 3,792 feet, initial production 66 bbls. per hour through three-quarters-inch tubing choke, total depth 3,808 feet; No. 8 Wheelis, top sand 3,725 feet, initial production 54 bbls. in one-half hour through tubing choke, total depth 3,728 feet. M. & G. Oil Co.'s No. 1 Moore and others, top sand 3,822 feet, initial production 25 bbls. in one-quarter hour through 1-inch tubing choke, total depth 3,825 feet. Mid-Kansas Oil & Gas Co.'s No. 9 E. E. Moore, top sand 3,625 feet, initial production 160 bbls. open through tubing, total depth 3,674 feet.

Overton Refining Co.'s No. 1 fee, top sand 3,748 feet, initial production 65 bbls. in one-half hour through open tubing, total depth 3,808 feet. Sayre Petroleum Co.'s No. 3 Samp Stone, initial production 140 bbls. per hour through tubing, total depth 3,668 feet. Sinclair Oil & Gas Co.'s No. 21 Kinney, top sand 3,-616 feet, initial production 75 bbls. in one-half hour through open tubing, total depth 3,630 feet. Sonbar Oil Co.'s No. 3 Finney, top sand 3,645 feet, initial production 70 bbls. per hour through open tubing, total depth 3,720 feet.

Stanolind and Pure Oil Co.'s No. 1 R. A. Moore, top sand 3,607 feet, initial production 130 bbls. per hour through tubing, total depth 3,612 feet. Sun Oil Co.'s No. 3-B Schuler, top sand 3,608 feet, initial production 29 bbls. per hour through tubing, total depth 3,665 feet. Tidal Oil Co.'s No. 2 Flannagan, top sand 3,659 feet, initial production 57 bbls. in 10 minutes through tubing and casing, total depth 3,705 feet; No. 6 L. J. Pinkston, top sand 3,751 feet, initial production 21 bbls. in 10 minutes through open tubing, total depth 3,810 feet. Grady Vaughan's No. 2 G. W. Reagan, top sand 3,761 feet, initial production 90 bbls. per hour through tubing, total depth 3,811 feet. Ward Oil Co.'s No. 9 E. S. Thrash, top sand 3,760 feet, initial production 90 bbls. per hour through tubing, total depth 3,806 feet.

Smith County

Bunte and others' No. 1 Atkinson, location abandoned. C. B. Bunte, Inc.'s No. 3 I. J. Smith, top sand 3,705 feet, initial production 90 bbls. per hour through open tubing, total depth 3,711 feet. Gant and Wegener's No. 1 Sebe Stone, top sand 3,855 feet, initial production 96 bbls. in 20 minutes through open casing, total depth 3,861 feet. Hardly Able Oil Co.'s No. 1 Cooke, top sand 3,750 feet, initial production 80 bbls. in one-half hour through open tubing, total depth 3,754 feet. W. B. Hinton's No. 1 Mayfield, top sand 3,758 feet, initial production 200 bbls. per hour through open tubing, total depth 3,765 feet. Mid-Kansas Oil & Gas Co.'s No. 1 J. H. Sharp, top sand 3,646 feet, initial production 220 bbls. per hour through open tubing, total depth 3,650 feet; No. 5 M. L. Thompson, top sand 3,672 feet, initial production 240 bbls. per hour through open tubing, total depth 3,672 feet. Sinclair Oil & Gas Co.'s No. 2 Amanda Wiley, top sand 3,786 feet, initial production 50 bbls. in 30 minutes through 1-inch tubing choke, total depth 3,788 feet. Sun Oil Co.'s No. 4 E. O. Henson, top sand 3,678 feet, initial production 92 bbls. per hour through open casing, total depth 3,689 feet; No. 8 O. W. Knight, top sand 3,647 feet, initial production 85 bbls. per hour through open tubing, total depth 3,653 feet.

Upshur County

Cal Pet Corp.'s No. 2 Stinchomb, top sand 3,727 feet, initial production 65 bbls. per hour through three-quarters-inch tubing choke, total depth 3,730 feet. Danciger Oil & Refining Co.'s No. 1 Stinchomb, top sand 3,743 feet, initial production 65 bbls. per hour through tubing, total depth 3,755 feet. Humble Oil & Refining Co.'s No. 7 G. W. Johnson, top sand 3,685 feet, initial production 77 bbls. per hour through three-quarters-inch tubing choke, total depth 3,709 feet. Magnolia Petroleum Co.'s No. 8 R. A. Aikin, top sand 3,727 feet, initial production 126 bbls. per hour through three-quarters-inch tubing choke, total depth 3,736 feet. Steen Drilling Co. and Shell Petroleum Corp.'s No. 1 J. F. Phillips, top sand 3,653 feet, initial production 20 bbls. in one-quarter hour through open tubing, total depth 3,667 feet.

Daily oil shipments from East Texas for the week ending February 1, follows:

Shipments Through Main Trunk Lines

Company, size and location—	Bbls.
Arkansas P. L. Co., 8-in., Shreveport	11,206
Atlantic P. L. Co., 10-in., Atreco	16,552
Atlas P. L. Co., 8-in., Shreveport	2,929
Gulf P. L. Co., 2-8-in., Oklahoma	9,299
Gulf P. L. Co., 2-8-in., Port Arthur	21,092
Houston Oil Co., 8-in., Amigo	None
Humble P. L. Co., 2-10-in., Shreveport	43,866
Humble P. L. Co., 2-8-in., Todd	27,574
Liberty P. L. Co., 8-in., Rusk	2,108
Magnolia P. L. Co., 10-in., Center	20,813
Magnolia P. L. Co., 12-in., Corsicana	48,472
Shell P. L. Corp., 10-in., Houston	16,761
Sun-Yount Lee P. L. Co., 10-in., Sun City	21,981
Sinclair-Texas P. L. Co., 12-in., Teague	22,546
Texas P. L. Co., 10-in., Douglass	27,973
Texas Empire P. L. Co., 12-in., Port Arthur	53,624
Tidal Ref. Co., 6-in., Carthage	2,338
Total	349,134

Shipments to Refineries

Arrow Refining Co., Overton	S.D.
Beacon Refining Co., Henderson	900
Boone Refining Co., Arp	410
Central Refining Co., Friars Switch	S.D.
Constantin Refining Co., Overton	S.D.
Diamond Refining Co., Overton	820
East Texas Refining Co., Longview	5,983
East Texas Ref. Co., Friars Switch	3,944
Gladetex Refining Co., Gladewater	465
Gladewater Refining Co., Gladewater	425
Kilgore Refining Co., Kilgore	285
W. B. Mackey Ref. Co., Gladewater	700
Overton Refining Co., Overton	1,095
Petroleum Refractionating Co., Longview	S.D.
Sinclair Oil & Gas Co., Longview	540
Slack Refining Co., Camp Switch	S.D.
Southern Oil & Ref. Co., Reed Switch	700
Taylor Refining Co., Tyler	2,181
Total	17,548

Shipments by Tank Car

East Texas Ref. Co., from Longview	179
Tidal Ref. Co., from Camp Switch	229
Total	408
Total daily average distribution	367,090
Total daily average production	349,250
Daily average from storage	17,840

PLAN DEVISED FOR EAST TEXAS ON WELL AND ACREAGE BASIS

At the meeting of the East Texas Petroleum Engineering Society the following schedule of production based on the number of wells and acreage, assuming there are 100,000 productive acres in the field, was approved:

4,000 wells in field:	
Allowable per well, 35 bbls., total	140,000 bbls.
Allowable per acre, 2½ bbls., total	250,000 bbls.
	390,000 bbls.
5,000 wells:	
Allowable per well, 35 bbls., total	175,000 bbls.
Allowable per acre, 2¼ bbls., total	225,000 bbls.
	400,000 bbls.
6,000 wells:	
Allowable per well, 30 bbls., total	180,000 bbls.
Allowable per acre, 2 bbls., total	200,000 bbls.
	380,000 bbls.
7,000 wells:	
Allowable per well, 30 bbls., total	210,000 bbls.
Allowable per acre, 1¾ bbls., total	175,000 bbls.
	385,000 bbls.
8,000 wells:	
Allowable per well, 28 bbls., total	224,000 bbls.
Allowable per acre, 1⅝ bbls., total	167,000 bbls.
	391,000 bbls.

The foregoing information is presented below in tabulated form:

BARRELS PER DAY PER LEASE

Acres—	Number of wells											
	1	2	3	4	5	6	7	8	9	10	11	12
0- 12.5	75	110	145	180	...	...	...	...	...	...	...	...
12.6- 17.5	80	115	150	185	220	...	...	...	...	...	...	...
17.6- 22.5	85	120	155	190	225	...	...	...	...	...	...	...
22.6- 27.5	98	133	168	203	238	...	...	...	...	...	...	...
27.6- 32.5	110	145	180	215	250	285	...	...	...	...	...	...
32.6- 37.5	123	158	193	228	263	298	...	...	...	...	...	...
37.6- 42.5	135	170	205	240	275	310	345	...	...	...	...	...
42.6- 47.5	...	183	218	253	288	323	358	...	...	...	...	...
47.6- 52.5	...	195	230	265	300	335	370	405	...	...	...	...
52.6- 57.5	...	208	243	278	313	348	383	418	...	...	...	...
57.6- 62.5	...	220	255	290	325	360	395	430	465	...	...	...
62.6- 67.5	...	233	268	303	338	373	408	443	478	...	...	...
67.6- 72.5	...	245	280	315	350	385	420	455	490	525	...	...
72.6- 77.5	...	258	293	328	363	398	433	468	503	538	...	...
77.6- 82.5	...	270	305	340	375	410	445	480	515	550	585	...
82.6- 87.5	...	...	318	353	388	423	458	493	528	563	598	...
87.6- 92.5	...	...	330	365	400	435	470	505	540	575	610	645
92.6- 97.5	...	...	343	378	413	448	483	518	553	588	623	658
97.6-102.5	...	...	355	390	425	460	495	530	565	600	635	670
102.6-107.5	...	...	368	403	438	473	508	543	578	613	648	683
107.6-112.5	...	...	380	415	450	485	520	555	590	625	660	695
112.6-117.5	...	...	393	428	463	498	533	568	603	638	673	708
117.6-122.5	...	...	405	440	475	510	545	580	615	650	685	720

1. Production shall be taken equally from all wells on the lease.

2. No well shall produce greater than the allowable for one well and 40 acres, or 135 bbls.

3. In as much as no well can produce more than the allowance for 40 acres, it would not be necessary that offset wells should produce the same amount of oil daily. The special consideration given to leases of less than 20 acres would also tend to compensate possible differences in allowances for offset wells.

4. The above plan is based on acreage and well allowable, with the present number of wells (approximately 4,000) as a starting point. The productive area of the field is assumed to be 100,000 acres. This would place the allowable for the field at approximately 390,000 bbls. daily.

WOODLEY CO. ELECTION

SHREVEPORT, La., Feb. 8.—J. R. Parten, of Shreveport, president of the Texas Independent Oil Men's Association, was re-elected president and general manager of the Woodley Petroleum Co., at the annual stockholders' meeting in Shreveport. Other officers re-elected are: E. G. Palmer, of Shreveport, chairman of the board; R. H. Deas, Meridian, Miss., and Myron G. Blalock, Marshall, Tex., vice presidents; J. R. Pope, Shreveport, secretary-treasurer, and J. B. Cook, Shreveport, assistant secretary.

The following were re-elected to the board of directors besides the chairman of the board, president, vice presidents and secretary-treasurer: E. W. Moutray, Abilene, Tex.; G. John Kooiker, Holland, Mich.; H. W. Davenport, Minden, La.; Eugene Harding, Shreveport; W. T. Moran, Houston, Tex., and E. M. Funkhouser, Tyler, Tex.

BARNABAS WICKETT DIES

CHATHAM, Ontario, Feb. 8.—Barnabas Wickett, aged 85, died recently at Toronto. As a young man he came to Petrolia and was for a number of years actively associated with the oil industry in connection with the late J. L. Englehart, pioneer producer and refiner.

REVIEW OF LATEST EASTERN GAS FIELD

(Continued from Page 16)

age well in Pennsylvania will be in the vicinity of $17,500; the maximum cost with which the writer is familiar is $50,000.

The cost of an average well in the Wayne-Tyrone Field, New York, will be in the vicinity of $6,000.

The common method of casing a well is a joint or two of 13-inch casing used for a conductor; 200 to 300 feet of 10-inch casing, 750 to 1,000 feet of 8¼-inch casing, and approximately 4,000 feet of 6⅝-inch casing or 7-inch (outside diameter) casing. The weight of this pipe varies from 24 to 30½ pounds per foot. Some operators are casing their wells with 5⅜-inch casing. Within the proven areas the long string of pipe is "cemented in." Some operators lower the string of pipe into 75 to 100 feet of neat cement which has been placed in the bottom of hole by means of a dump bailer. A heavy shoe is used on the bottom of the pipe. As the string of pipe is lowered into the hole, the cement is crowded around the pipe on the outside. Other operators use the Halliburton system of cementing. The cement is forced on the outside of the pipe by means of water pressure. Several hundred feet of cement is used.

The average depth drilled in northern Pennsylvania will vary from 4,000 to 4,500 feet. The deepest well drilled in the Tioga County Field, to date, is the Shoemaker dry hole. It requires from 60 to 90 days to complete a well in this territory.

Initial Production

Wells have varied from a few hundred thousand cubic feet of gas to nearly 100,000,000 cubic feet of gas a day, open flow. Two of the largest wells east of the Mississippi River have been completed in this field. One was the Penn-United Co.'s No. 1 Meeker and the other the Lycoming Natural Gas Corp.'s M. P. Close well. Each well had an open flow of between 75,000,000 and 100,000,000 cubic feet of gas per day.

The rock pressure of the Tioga County Field varies from 1,650 to 1,740 pounds. The average size of a producing well would be 20,000,000 cubic feet of gas a day. Only one deep well has been completed in Potter County, Pennsylvania, to date, it being the one referred to in the beginning of this paper, which was drilled by the Hungiville Oil & Gas Co. to a depth of 4,923 feet. The rock pressure of this well is 2,125 pounds.

The average open flow of the wells in the Wayne-Tyrone Field is about 4,000,000 cubic feet of gas a day. The average depth is less than 2,000 feet, and the rock pressure is in the neighborhood of 750 pounds.

Character of Sand

The size of the wells in all the fields depends upon the character of the sand, which factor depends upon the porosity and the permeability.

It has been suggested by Doctor Ashley and Doctor Fettke that the production from the Tioga County Field is crevice production. The writer does not confirm this, but is of the opinion that nearly all the production is obtained from the pore spaces of the sandstone, the same as with other production in Pennsylvania. The fact that our smaller wells have been obtained from the sand in which our porosity has been the lowest, and that we continue to get pay for an interval of 10 to 12 feet in the sand, indicates that this could not be from crevices. It is possible that small fractured areas play a part with the porosity in the producing zones.

Wells and Capacity

In the Wayne-Tyrone Field, approximately 100 wells have been drilled within the proved area itself. Very few of these have been dry holes, though dry holes are encountered around the edges and occasionally within the proved area. The western end of the Wayne-Tyrone Field is a town-lot drilling proposition. In the village of Wayne many wells are being drilled on lots, the area of which is less than half an acre. It is evident that these wells will have a very short life, and many investors will never receive the amount of their investment.

Several dry holes have been completed in purely wildcat territory in New York. Some of these were well located geologically, while others were not so well located.

In the Tioga gas field, 25 producing wells have been completed, with a total open flow of 500,000,000 feet of gas daily. Within the so-believed proved area of the Tioga Field eight dry holes have been completed. In northern Pennsylvania, 16 additional dry holes have been completed which were well located on structure, and were being drilled as purely wildcat wells. It is of interest to note that out of the 36 dry holes completed in northern Pennsylvania, eight were located off structure and had no chance for production.

Geophysics Suggested

It is the writer's belief that by the use of geophysical prospecting (by seismograph) and by more detailed study of sand conditions, this percentage of dry holes can be materially decreased within a proved area. It will be necessary to continue drilling a large number of dry holes in order to discover new fields.

There are many promising looking areas, well located on structure, that have not yet been tested, and it is the writer's belief that several of these locations will in the future prove to be commercial gas fields. Very little gas has been marketed from this area, hence no figures are available regarding reserves. Taking, however, the porosity, the thickness of pay, and the rock pressures of the wells into consideration, it can be seen that the proved area should yield at least 10,000,000 cubic feet of gas to the acre in the Pennsylvania fields and about 3,000,000 cubic feet to the acre in the Wayne-Tyrone Field.

Heating Value

The heating value of the gas in this region varies from 1,015 to 1,058 B.t.u. Methane is the principal constituent, varying from 81 to 99 per cent.

In order that gas wells or gas fields may have any value it is necessary to have markets. The markets usually are located some distance from the producing fields, and it is therefore necessary to transport the gas from the field to the market. At the present time one 14-inch welded line has been completed from the Tioga Field to Williamsport, Pa. This line was constructed by the Susquehanna Gas Co., for a distance of approximately 50 miles.

Bringing Gas to Market

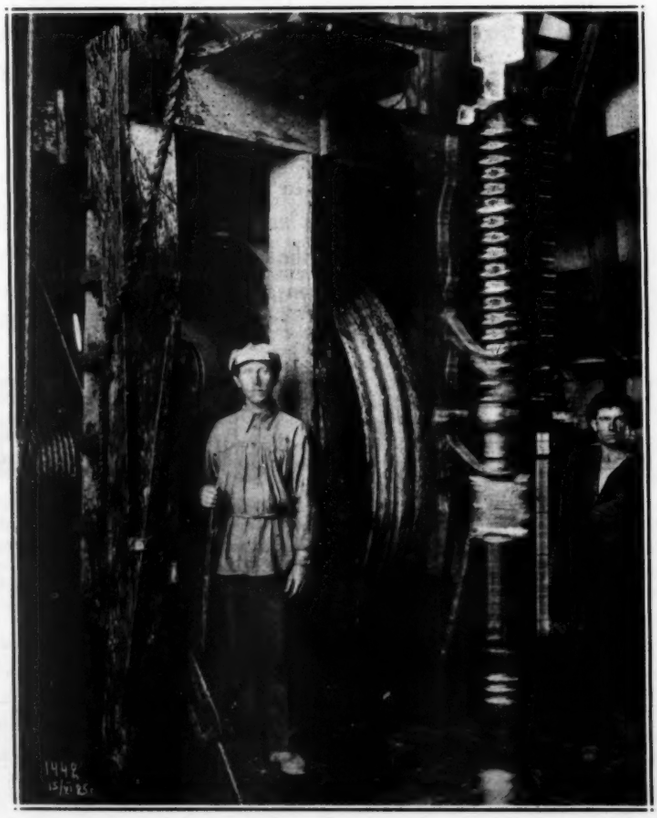
A 20-inch line is now under construction from the Tioga County Field to Syracuse, N. Y., a distance of 110 miles. This line is being constructed by the New York State Natural Gas Corp. It is to be Dresser coupled, being constructed out of 20-foot and 40-foot lengths of pipe. The 20-foot lengths of pipe weigh 1,400 pounds and the 40-foot lengths weigh 2,800 pounds. This line will transport approximately 90,000,000 cubic feet of gas daily with a field pressure of 400 pounds and a delivery pressure of 100 pounds. Due to the rock pressure of 1,650 pounds in the field, no pumping stations will be necessary on this line. Three rivers were crossed with this line and in order to safeguard against a break in service five 10-inch lines were laid across each river and connected to the 20-inch line by means of a header on either shore. This 20-inch pipe line is being buried 34 inches beneath the surface of the ground. The average cost of a mile of 20-inch line through this territory will be approximately $25,000. It is expected that the 20-inch line to Syracuse, N. Y., will be completed and ready to deliver gas by the first of March, 1932.

The gas will be distributed in small towns, villages and cities for both domestic and individual purposes. In many cases the natural gas will be mixed with artificial gas, which is now being supplied and will be delivered to the consumer in this way.

BUYS BLUEPRINT COMPANY

The Zingery Oil Map Co., of Fort Worth, Tex., has purchased the Sherman Blueprint Co. of that city.

IN THE BAKU OIL FIELD



SIMPLICITY, COMPACTNESS FEATURE TEXAS PLANT

(Continued from Page 22)

this tower shows the following characteristics:

Gravity	68°F.
Initial	86
5%	112
10%	130
20%	154
30%	175
40%	196
50%	212
60%	229
70%	247
80%	272
90%	311
Endpoint	349
Recovery	94%

The topped crude is continuously withdrawn from the base of the flash tower and goes to the principal heating banks in the pipe still. Its temperature is raised to 590° F. and enters the second fractionating tower. The overhead stream from this tower is a high initial naphtha of the following characteristics:

Gravity	47.5
Initial	223
5%	267
10%	285
20%	305
30%	319
40%	333
50%	346
60%	357
70%	366
80%	378
90%	390
Endpoint	426
Recovery	99%
Color	25+

A side stream of kerosene distillate is taken off a tray in the upper section of this tower and is stripped of its light ends in an auxiliary tower, the light fractions returning to the naphtha tower. This kerosene has the following characteristics and emphasizes the effectiveness of the fractionation of the naphtha and stripping towers:

Gravity	40.8
Initial	415
5%	425
10%	429
20%	432
30%	434
40%	436
50%	438
60%	440
70%	443
80%	447
90%	453
Endpoint	474
Color	25+

Lower in the naphtha tower, a second side stream is taken off, the stream being a light gas oil. It does not contain sufficient light fractions to justify further stripping. Tests on this product indicate the following characteristics:

Gravity	36.3
Initial	462°F.
Flash	220°F.
Cold test	40

The bottoms, which were a 23.4 gravity fuel oil, are continuously withdrawn from the base of the naphtha tower and after giving up a portion of their heat to the incoming crude in the exchangers previously mentioned, are further cooled by water and pumped to storage. This fuel had a flash of 345° F.

Yields From Crude

The 39.5 gravity crude run during the test produced the following yields when the unit was operated to make a maximum of domestic aviation gasoline and U. S. Motor gasoline:

	Pct.
Dom. avi. gasoline (90% at 311° F.)	26.7
U. S. Motor gasoline	11.5
Kerosene (42.5 gravity)	3.0
Gas oil	19.2
Fuel oil	38.1
Loss	1.5

The volume of fuel oil consumed in the still approximates 1 per cent of the volume of crude processed. All oil pumping is done by Worthington reciprocating steam pumps and Terry turbine driven centrifugals on the water system. The recording of temperatures and the control is done with Brown and Foxboro instruments. The entire plant was designed and constructed as a unit by the Southwestern Engineering Corp.

Two large Series 1R Tube-Turns being welded into a gas-scrubber connection for a California oil company.

NOTHING ELSE WOULD DO

Perhaps the most significant thing about the present swing to pipe-welding is the variety of ***reasons*** that influence the choice. One fellow says "low price". Another says "low maintenance". Others say everything ranging from better appearance to reduced operating cost. But ***all*** agree on one point: ***They'll never go back to other methods of fabrication.***

More than any other one factor, Tube-Turns are responsible for the increasing amount of pipe-welding now being done. In every sense of the word, they are the FIRST fittings in the field. . . . If you want ***facts*** about the efficiency and economy of welding, and of Tube-Turns, the coupon below will bring you engineering data on the subjects in which you are interested. Simply check and mail. *Address:* Tube-Turns, *Incorporated,* 1311 S. Shelby St., Louisville, Ky.

TUBE-TURNS

TUBE-TURNS, *Incorporated,* 1311 S. Shelby St., Louisville, Ky. ***Gentlemen:*** Please send me, without obligation, complete data on the subjects checked: Simplification of designing and estimating ☐; Economies in fabrication and erection ☐; Reduction of maintenance ☐; Economies in insulating ☐; Reduction of regular and special fittings ☐; Reduction of pressure-drop ☐; Exclusive advantages of Tube-Turns ☐; Advantages of uniform walls ☐; Strength under high pressures and temperatures ☐; Reduction of weight ☐; Better expansion loops ☐.

*Firm Name*_____

*City*_____ *State*_____

*Att. Mr.*_____

Using 30 Per Cent Blend of Alcohol With Motor Fuels

By Charles E. Kern

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 8.—The Argentine government has been experimenting with mixtures of alcohol and gasoline to produce an efficient fuel as a means of aiding corn growers who produce the alcohol. Information has been received here from Vice Consul Hartley at Buenos Aires to the effect that an efficient motor fuel has been obtained with a 30 per cent volume mixture of alcohol.

The experts of the Argentine government declare that their gasoline-alcohol mixture has many qualities that make it preferable to pure gasoline. For instance, they claim with this motor fuel there is less liability to detonate, which permits higher compression, there is less heating to the motor and more elimination of knocking, greater flexibility and rapidity of acceleration, less oxidation of valves and less carbon in the motor. It is even claimed by these experts that the power obtained from their mixture is equal to or greater than from straight gasoline, and that more mileage per gallon is obtained.

The ambition of those who have sponsored this investigation, it is said, is to make the Argentine independent of the outside world in the matter of motor fuel requirements of the Republic. In 1930 imported gasoline had a total value of 38,000,000 gold pesos which is 5.14 per cent of the value of all imports. Argentina is said to be the largest exporter of corn in the world, and with prices around recent levels it is estimated that alcohol can be produced cheaper than gasoline can be imported.

Utilization in Germany

A marked increase in the mixture of alcohol with gasoline has also occurred in Germany where a law is now in effect requiring a 6 per cent alcohol mixture in the gasoline. The law became effective August 1, 1930, and was in operation only two months of the German fiscal year ended September, 1930, but Germany's consumption of alcohol increased from 23,784 hectoliters in the fiscal year ended September, 1930, to 488,045 in the following fiscal year.

"It is expected," states Consul Redecker in a report to the Commerce Department, "that consumption of alcohol motor fuel will show great expansion during the current year, the alcohol monopoly estimating requirements at 1,300,000 hectoliters."

WILBUR CONDITIONALLY FOR TARIFF ON OIL

(Continued from Page 14)

regions brings out the fact that practically all crude oil imports come into the Atlantic Coast area, particularly between Baltimore and New York City. In the Gulf Coast region, which has both imports and exports, the imports are about 1,000,000 bbls. greater than exports. Incidentally, all crude oil imports are consumed within a small radius of port of entry. The Canadian border is a net export region to the extent of about 10,000,000 bbls. California has a net export of about 8,000,000 bbls.

Statistics of refinery consumption of foreign and domestic crude shows that only two regions, the East Coast and the Texas and Louisiana Gulf Coast, use foreign crude. Of the crude used by East Coast refineries, 33 per cent was foreign; of the Gulf Coast, 5 per cent was foreign. While details of gasoline yields from foreign crude are not available, the quality of foreign crudes does not compare favorably with domestic crudes.

Gasoline imports and exports by major regions disclose that there are only three regions in which the imports exceed the exports, namely New England, the Middle and South Atlantic. The net imports in the South Atlantic and New England are not greatly unlike—just under 2,750,000 bbls. each. In the Middle Atlantic the exports are about 65 per cent of the imports. While there is a net export—2,897,000 bbls. across the Canadian frontier, yet, the great bulk of the export excess is built up by California and the Gulf Coast.

FUEL CONSUMPTION IN REFINERIES INCREASE

The average petroleum refinery consumes about one-tenth as much fuel as it produces, measured in B.t.u. according to the Department of Commerce. The quantity of heat utilized in refining the average barrel of crude oil rose from 639,000 B.t.u. in 1929 to 672,000 B.t.u. in 1930. Theoretically, it is explained, fuel consumption should be much less, but furnaces cannot be designed to produce 100 per cent efficiency, and also a large part of the waste is low temperature heat which would not pay the expense of recovery.

Oil refineries are utilizing more of their own products for fuel, such as fuel oil from cracking stills, coke, sludge, and refinery gas, for which there is little demand or which is salable only at low prices. Consequently use of natural gas as a refinery fuel appears likely to decrease, a trend noticeable since 1927.

Oil has been the chief fuel used at petroleum refineries for years. Consumption in 1930 was 46,956,000 bbls., a decline of 9 per cent from 1929. It is estimated that consumption of "acid sludge" as fuel was 4,000,000 bbls., or considerably more than in the previous year. Consumption of coal declined some 15 per cent, and of natural gas about 5 per cent. Consumption of refinery, or still, gas, however, increased 23 per cent to 121,321,000,000 feet, and consumption of coke mounted 19 per cent to 580,000 short tons.

Refineries purchased 44 per cent more electricity in 1930 than in 1929, or 826,640,000 kilowatt hours as compared with 573,463,000.

FORD MIDGETS TO ENGLAND

DETROIT, Mich., Feb. 8.—Ford Motor Co. has shipped to England 12 "bantam" four-cylinder cars bearing the Ford nameplate according to the Michigan Manufacturing & Financial Record. They say the car is less than 10 feet in length from bumper to bumper, has a fender width of 55 inches, a height of 53 inches and a motor exactly 11 inches long.

WILDCAT OPERATIONS IN TEXAS PANHANDLE

(Continued from Page 30)

Prairie Oil & Gas Co.'s No. 1 Pope, 330 ft. from N and E, Sec. 173, Blk. 3, I.&G.N. ..... Rig up.

Saunders et al's No. 2 Sullivan, 822 ft. from W and 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, I.&G.N. Sur. ..... Will plug back to 3,275 ft. and shoot.

Skelly Oil Co.'s No. 24 Schaffer, 440 ft. from W, Sec. 173, Blk. 3, I.&G.N. Sur. ..... Set 10-in. csg. 1,145 ft.

Skelly Oil Co.'s No. 25 Schaffer, 330 ft. from S and E, Sec. 189, Blk. 3, I.&G.N. ..... Rig on ground.

Skelly Oil Co.'s No. 26 Schaffer, 330 ft. from S and W, Sec. 172, Blk. 3 I.&G.N. ..... Building rig.

Stanolind Oil & Gas Co.'s No. 2 Waggoner, 330 ft. from N and W, Sec. 173, Blk. 3, I.&G.N. ..... Building rig.

Sullivan & Ochiltree's No. 1-A Morse, 330 ft. S and W, N½ NE, Sec. 15, Blk. A-9, H.&G.N. Sur. ..... Shot 160 qts. 2,802-80 ft.; T.D. 2,880 ft.; cleaning out.

Tarber's No. 1 Saunders, 330 ft. N and W, Sec. 3, Blk. 1, B.B.&S.F. Sur. ..... Location.

HUTCHINSON COUNTY

Baso's No. 1 Moore, 330 ft. from S and 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21, T.C.R.R. Sur. .. Spudding.

Combination O. & G. Co. and Alspaugh's No. 1 Johnson, 330 ft. from S line, 330 ft. from E line of NW SW, Sec. 4, Blk. Y, A.&B. Sur. ..... Rig up.

Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.

Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur. ... S.D. 450 ft.

Huber Prod. Co.'s No. 1 Johnson Bros. (Premier), 330 ft. N and E of W 60 ac., N 80 ac., NW, Sec. 3, Blk. Y, A.&B. Sur. ..... T.D. 3,116 ft; to plug back.

Harry Stekoll's No. 1 Whittenburg, 1,650 ft. from N, 330 ft. from E, Sec. 89, Blk. Z, G.C.&S.F. Sur. ..... Running 10-in. csg. 325 ft.

Timms-Deatch's No. 4 Moore, 330 ft. N and W, Sec. 124, Blk. 4, I.&G.N. Sur. ..... Rig.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

J. M. Baldridge's No. 1 R. O. C. Brumley, 330 ft. from N line and 330 ft. from W line of SW, Sec. 360, H.&T.C. Sur. ..... Location.

Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... Spudded and S.D.

Interstate's No. 1 Nield, C NE, Sec. 18, Blk. 44, H.&T. C. Sur. ..... Rig up.

Magnolia Pet. Co.'s No. 1 Nield, 330 ft. from S and E of N½, Sec. 361, Blk. 44, H.&T.C. Sur. ..... Drlg. 2,173 ft.

Pollard et al's No. 1 Hall, 330 ft. S and E, NE, Sec. 131, Blk. 3-T, T.&N.O. Sur. ..... Rig on ground.

Sunray Oil Co.'s No. 2 Jones, 330 ft. N and W, W½ SW, Sec. 164, Blk. 3-T, T.&N.O. Sur. ..... Rig on ground.

Texas Interstate P. L. Co.'s No. 1-23 Thompson, C N½ NE, Sec. 23, Blk. 44, H.&T.C. Sur. ..... Location.

Texas Interstate P. L. Co.'s No. 1-37 Sneed, C NW, Sec. 37, Blk. 6-T, T.&N.O. Sur. ..... Location.

Texhoma Nat. Gas Co.'s No. 4 Coon "M," C SE, Sec. 103, Blk. 44, T.&T.C. Sur. ..... Material on ground.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Amalgamated German-American Oil Corp.'s No. 1 Norton, 330 ft. S and E, Sec. 12, T.&N.O. Sur. ..... S.D. 400 ft.

Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. 8, G.C.&S.F. Sur. ..... Drlg. 3,400 ft.

PARMER COUNTY

Magnolia Pet. Co.'s No. 1 Wilson, 330 ft. from N and W, SE, Sec. 73, H. Kelly Sur. ..... Drlg. 3,091 ft.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... Drlg. 3,320 ft.

Travis et al's No. 1 Cunningham, 330 ft. S and W, Sec. 74, Blk. M-2, H.&G.N. Sur. ..... S.D. 2,690 ft.

WHEELER COUNTY

Clarity et al's No. 1 Porter, 330 ft. S and W, SE, Sec. 2, Blk. A-9, H.&G.N. Sur. ..... S.D. 2,235 ft.

Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E of E½ of Sec. 33, Blk. 24, H.&G.N. Sur. ..... Estimated 30,000,000 ft. gas; T.D 2,263 ft.; S.D.

WILDCAT OPERATIONS IN WEST TEXAS

(Continued from Page 30)

Southern Oil Corp. of America's No. 1 Wm. Flannigan, 240 ft. from E and 165 ft. from W line of S 20 acres of SW, Sec. 20, B.B.B.&C.R.R. Sur. ..... Underreaming 1,640 ft.

GLASSCOCK COUNTY

Mann et al's No. 1 fee, 330 ft. from N and 1,980 ft. from E, Sec. 27, Blk. 34, Twp. 3s, T.&P. Sur. ..... Fishing 255 ft.

GARZA COUNTY

Penny & Posey's No. 1 Justice, 1,980 ft. from S and 1,680 ft. from E of Sec. 25, Blk. 6, H.&G.N. Sur. (3,500-ft. cable tool test) ..... Fishing for 6⅝-in. csg.; T D 3,320 ft.

HOWARD COUNTY

Green O. & R. Co.'s No. 1 Denman, 990 ft. from S and 2,310 ft. from W, Sec. 14, Blk. 29, Twp. 1s, T.&P. Sur. . Spudded and S.D.

L. C. Harrison et al's No. 1 L. C. Denman, 2,310 ft. from S line and 330 ft. from E line of Sec. 10, T.&P.R.R. Sur., Blk. 30 ..... T.P. 2,735 ft.; shot 300 qts. 2,727-2,807 ft.; swabbed and flowed 200 bbls. first 13 hrs.

IRION COUNTY

Davis et al's No. 1 Suggs, 1,560 ft. from S and 925 ft. from W, Sec. 3,081, Blk. 28, H.&T.C. Sur. ..... Waiting on cmt. to set; T.D. 5,627 ft.

Stanolind Oil & Gas Co.'s No. 1 Williams, 1,320 ft. from S and E of Sec. 1,196, T.T.R.R. Sur. ..... Drlg. 6,924 ft.

Straughn & Adkins Bros.' No. 1 Lee, 1,080 ft. from W and 420 ft. from N of Sec. 729, C. Kaiser Sur. ..... T.D. 1,347 ft.; cleaning out.

JONES COUNTY

Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of N half of Sec. 39, Blk. 18, T.&P. Sur. ..... Rig up.

Grove & Shield's No. 1 Toomls, 1,140 ft. from N and 220 ft. from E Sec. 25, Blk. 19, T.&P. Sur. ..... Location.

Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ..... Location.

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 43.4-acre tract in G. Martinez Sur. ..... S.D. 1,005 ft.; temp. abnd.

LOVING COUNTY

Wm. Little's No. 1 Hugo Freels, 1,923 ft. from NE lines and 410 ft. from NW lines of Sec. 92, W.&N.W. Sur., Blk. 1 ..... Location.

Adams et al's No. 1 Wheat, 330 ft. from SE and SW of Sec. 89, Blk. 1, W.&N.W. Sur. ..... Drlg. 2,750 ft.

Ervin & Mahres' No. 1 Thrope, 2,310 ft. from E and 330 ft. from S, Sec. 46, Blk. 53, T.&P. Sur. ..... S. D. 810 ft.

Slack's No. 1 Lynd, 990 ft. NE and 330 ft. SE of Sec. 3, Blk. 2, W.&N.W. Sur. ..... Drlg. 4,110 ft.

Falbre & Evans' No. 1 Dean, 330 ft. from NE and 990 ft. from NW, Sec. 79, Blk. 33, H.&T.C. Sur. ..... S.D. 2,500 ft.

Lewis & Slagel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 56, Twp. 1, T.&P. Sur. .. S.D. 250 ft.

Lockhart & Co.'s No. 3 Bowen & Wells, 330 ft. from NE and SE of Sec. 92, Blk. 1, W.&N.W. Sur. ..... S.D. 3,385 ft.

Phillips Pet. Co.'s No. 3 Wheat, 330 ft. from SW and 2,310 ft. from SE, Sec. 85, Blk. 1, W.&N.W. Sur. ..... Drlg. 1,865 ft.

Stein & Bowers' No. 1 Jim Wheat, 1,650 ft. from NW and 1,650 ft. from NE lines of Sec. 83, W.&N.W. Sur., Blk. 1 ..... Location.

Tennant et al's No. 1 Martin, 990 ft. from NW and SW, Sec. 66, Blk. 1, W.&N.W. Sur. ..... S.D. 4,335 ft.

MENARD COUNTY

Priest's No. 1 Sorrel, 1,000 ft. from E and 200 ft. from S cor., Sec. 132, E.L.R.R. Sur. ..... S.D. 2,360 ft.

PECOS COUNTY

Anderson's No. 1 Lee Fever, 330 ft. from N and W of Sec. 78, Blk. 8, H.&G.N. Sur. ..... S. D. 2,037 ft.

Cardinal Oil Co.'s No. 1 J. H. Tippett ("J"), 1,980 ft. from the S line and 990 ft. from the W line of Sec. 2, D. F. Robertson Sur. ..... S.D. 675 ft.

Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 39, G.C.&S.F. Sur., Blk. 194 ..... Location.
Culberson Bros.' No. 3-A Monroe, 575 ft. from N and 150 ft. from E, Sec. 39, Blk. 194, G.C.&S.F. Sur..... S.D. 625 ft.; 100 bbls. b.s. and water.
Hampton et al's No. 1 Byrne, 1,980 ft. from NW and 1,500 ft. from NE Sec. 54, Blk. 10, H.&G.N. Sur. .... Spudding.
Dittman's No. 1 Sanford, 330 ft. from NW and 1,650 ft. from NE of Sec. 55, Blk. 10, H.&G.N. Sur..... S.D. 1,225 ft.
Slaughter et al's No. 1 Sun Yates, 60 ft. S of Sun Oil Co.'s No. 1 Yates, Sec. 59, Blk. 1, I.&G.N. Sur..... Material.

REAGAN COUNTY

Big Lake Oil Co.'s No. 6-C University, 1,370 ft. from S and 1,000 ft. from E, Sec. 12, Blk. 2 ..... T.D. 4,810 ft.; drlg. by csg. at 3,030 ft.

REEVES COUNTY

Cunningham et al's No. 1 Wright, 1,320 ft. from S and W, Sec. 58, Cassel's Sur. ..... S.D. 75 ft.
F. McDorman et al's No. 1 Ray Roberts et al, 2,310 ft. from S and E lines of Sec. 22, Blk. 59, P.S.L. Sur..... S.D. 105 ft.
James & Milton's No. 1 Patterson, 330 ft. from N and W of Sec. 21, Blk. 72 ..... S.D. 3,360 ft.
Lee O. White et al's No. 1 Hershersor, 330 ft. from N and W lines of Sec. 5, Blk. 61, Twp. 10, T.&P. Sur.... S.D. 5,044 ft.

RUNNELS COUNTY

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,427-20 ft.; S.D. 3,600 ft.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C, Sec. 29, Blk. M, G.H.&S.A. Sur. ..... S.D. 4,810 ft.
Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T. C. Sur. ..... Fishing 5,580 ft.
George Wilson's No. 1 Page, Sec. 40, Blk. L, 1,290 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ..... S.D. 5,052 ft.

SCURRY COUNTY

G. E. Dickman and R. B. Pender et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 275, Blk. 2, H.&T.C. Sur. ..... S.D. 5,050 ft.
Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 68, Blk. 3, H.&G.N. Sur. ..... Spudded and S.D.
Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ..... S.D. 3,900 ft.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW, Sec. 155, Blk. D, M-K-T Sur. ..... S.D. 2,269 ft.
Keck Pecos Trust Co.'s No. 1 Hamilton, C, Sec. 6, Georgetown Ry. Sur. ..... S. D. 3,150 ft.; moved off tools.
Miller Bros.' No. 1 Allison & Burke, C NW, Sec. 10, Blk. 176, T.&P. Sur. ..... S.D. 120 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S, Sec. 26, Blk. 161, G.C.&S.F. Sur.. S.D. 6,120 ft.
Jones et al's No. 1 Fankenham, C SE NW, Sec. 45, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ..... S.D. 2,545 ft.
Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ..... S.D. 855 ft.

TOM GREEN COUNTY

Andrews' No. 1 Pugh, 250 ft. from N and 5,184 ft. from E, James Eldridge Sur. No. 73 ..... S.D. 453 ft.
Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 587 ft. from E of John McNeese Sur. ..... S.D. 760 ft.; S.O. and gas 725 ft.
Mintex Oil Co.'s No. 1 Campbell Est., 446 ft. from S and 630 ft. from W of Sec. 180, Dist. No. 11, S.P. Sur.... S.D. 1,994 ft.
Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ..... S.D. 200 ft.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 31, Blk. 1, I.&G.N. Sur..... S.D. 220 ft.
Independent Operators' No. 1 Whitehead, SE SE, Sec. 10, Blk. 4, I.&G.N. Sur., elev. 1,175 ft. ..... S.D. 5,360 ft.
O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, I.&G.N. Sur., elev. 2,130 ft. ..... S.D. 6,780 ft.

WARD COUNTY

Abell Bros.' No. 1 Sloan, 330 ft. from NW and NE, Sec. 24, Blk. 5, H.&T.C. Sur. ..... S.D. 2,050 ft.; show oil and gas 2,045-50 ft.
Alpine Oil & Dev. Co.'s No. 4 J. F. Hoogher, 150 ft. from SE line and 150 ft. from the SW line of Tract 16, Sec. 11, Blk. 5, H.&T.C. Sur. ..... T.P. 2,155 ft.; S.D. 2,215 ft.; flowing 10 bbls. day.
Bradford & Bentley's No. 1 B. Carson, 1,650 ft. from the NE line and 990 ft. from the SE line of Sec. 26, H.&T.C. Sur., Blk. 5 ..... Location.
Buck Sturm et al's No. 2 R. H. Gill, 2,310 ft. from SW line and 330 ft. from SE line, Sec. 25, Blk. B-29, P.S.L. Sur. ..... Drlg. 872 ft.
Eppenauer's No. 1 Purcell, 365 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 34, H.&T.C. Sur..... Drlg. 2,610 ft.; show oil 2,475 ft.; 2,490 ft. oil and b.s. and water in hole.
H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... Fishing 720 ft.
Gulf Prod. Co.'s No. 9 Hutchings, 330 ft. from N and 1,650 ft. from W of S 370 acres of Sec. 5, Blk. F, G.M.M.B.&A. Sur. ..... Flowed 125 bbls. in 24 hrs.; cleaning out 2,750 ft.
Gulf Prod. Co.'s No. 20 O'Brien, 1,870 ft. from N and 330 ft. from E, Sec. 16, Blk. F, G.M.M.B.&A. Sur..... T.D. 2,647 ft.; cleaning out.
Moran & Burkhart's No. 2 J. T. Sweatt et al, 3,810 ft. from SW, Sec. 1, J. Howe Sur. ..... S.D. 821 ft.
Moran & Miles' No. 1 Boogher, 3,603 feet from NE and 1,303 ft. from SE Sec. 11, Blk. 5, H.&T.C. Sur. ..... S.D. 610 ft.
R. F. Owen's No. 1 Lee, 1,344 ft. from NW and 4,532 ft. from SW Sec. 1, J. Howe Sur. ..... S.D. 560 ft.
Plains Prod. Co. and Simms Oil Co.'s No. 1 Benton Land Co., 440 ft. from the SE and 440 ft. from SW lines of Sec. 26, W.&N.W.R.R. Sur., Blk. 1 ..... Location.
Prairie Oil & Gas Co.'s No. 2 Edmonson, 330 ft. from NW and SW of Sec. 23, Blk. 5, H.&T.C. Sur..... S.D. 2,510 ft.; T.P. 2,420 ft.; shot 30 qts. 2,460-2,500 ft.; swabbing average 25 bbls. oil per day.
Rector Oil Co.'s No. 1 Smith, 1,320 ft. from N and E. Sec. 22, Blk. A, G.M.M.B.&A. Sur. ..... S.D. 3,602 ft.
Sudderth & Carey's No. 1 J. H. Boogher et al, 150 ft. from SW and SE lines of Lot 24, Sec. 11, Blk. 5, H.&T.C. Sur. ..... S.D. 290 ft.
Shipley et al's No. 1 Monroe, 330 ft. SE SW, Sec. 3, Blk. 1 ..... T.D. 4,666 ft.; shot 15 qts. 4,666-4,672½ ft.; hole bridged 200 ft. off bottom; swabbed 130 bbls. oil in 12 hrs.
Stanolind Oil & Gas Co.'s No. 1 Cannon, 3,300 ft. from SE and 1,649 ft. from NE, Sec. 29, Blk. B-29..... Fishing 300 ft.
Stanolind Oil & Gas Co.'s No. 1 Weiss, 300 ft. from NW, 300 ft. from NE of S 100 acres, Sec. 4, Blk. 34..... Fishing for tools; T.D. 2,330 ft.; 400 ft. oil in hole.
White et al's No. 1 Burtner, 150 ft. from NE and 515 ft. from SE of Sec. 8, Blk. 32, H.&T.C. Sur. ..... S.D. 755 ft.

WINKLER COUNTY

Liner Drlg. Co.'s No. 1 Campbell, 350 ft. from N and E cor., Sec. 2, Blk. B-5 ..... S.D. 4,640 ft.
Richardson's No. 1 Sealy, 330 ft. from S and W of Sec. 92, Blk. A, G.M.M.B.&A. Sur. ..... T.D. 2,775 ft.; show oil and gas 2,470 ft.
Sid Richardson's No. 1 S. M. Halley, 330 ft. from the S line and 1,650 ft. from the E line, Sec. 25, School Blk. B-12 ..... Drlg. 1,790 ft.

EAST AND EAST CENTRAL TEXAS WILDCATS

(Continued from Page 26)

Beard et al's No. 1 J. J. Fuller, 330 ft. from S and W lines of 69.7-ac. tract, M. Alexander Sur. ..... Location.
Brown et al's No. 1 Florence, 150 ft. from N and W lines of 2.54-ac. tract, Mary Van Winkle Sur. ..... Derrick.
Will Brown's No. 1 E. Choice, 400 ft. due east of Collins' No. 1 H. T. Elder ..... Derrick.
Bob et al's No. 1 T. L. Broy, 290 ft. from E and 1,640 ft. from S of H. A. Holdt Sur. ..... Derrick.
M. T. Beeler's No. 1 Finley and Thomas, 150 ft. from N and 150 ft. from W of 10-ac. lease, C. H. Alexander Sur. ..... Derrick.
Byrd-Frost Oil Co.'s No. 1 Alexander and Strong, 330 ft. from S and E lines of 26-ac. tract, M. Tennison Sur. ..... Derrick.
Central Com. Oil Co.'s No. 1 A. A. King, 233 ft. from S and 330 ft. E of NW cor. of 133-ac. lease, M. Tennison Sur. ..... Drlg. 2,885 ft.
E. L. Chapman's No. 1 J. Clayborn, 275 ft. S and 158 ft. W of NE cor. of 4-ac. lease, I. Baty Sur. ..... Derrick.
Danciger Oil & Ref. Co.'s No. 1 S. Ball, located on a 2-ac. tract, Mary Van Winkle Sur. ..... Derrick.
Demotte et al's No. 1 T. L. Bray, center of Blk. No. 8, H. R. Holit Sur. ..... Location.
Dodd and Markey's No. 1 J. F. Holt, 615 ft. E and 707 ft. N of SW cor. of 200-ac. tract, H. Edwards Sur. .. Derrick.
W. L. Duninger's No. 1 C. C. Stoen, 350 ft. from S and E lines of 59-ac. tract, J. Baty Sur. ..... Derrick.
East Texas Refining Co.'s No. 1 Tom Christian, center of lease, G. W. Hooper Sur. ..... Location.
Empire Gas & Fuel Oil Co.'s No. 1 V. L. Taylor, 330 ft. from N line and 353 ft. from W line of 40.55-ac. lease, M. Tennison Sur. ..... Rig up.
F. H. E. Oil Co.'s No. 1 J. M. Christian, 330 ft. from S line and center of E and W lines of E 7.5-ac. tract, G. W. Hooper Sur. ..... Drlg. 2,375 ft.
Faith Oil Co.'s No. 1 Walters, 246 ft. E of W line and 145 ft. N of S line and SW cor. of survey, B. W. Witcher Sur. ..... Location.
Fither et al's No. 1 F. Thomas, 160 ft. from S line and 150 ft. from W line of 10-ac. lease, C. H. Alexander Sur. ..... Spudding.
Glasscock Bros.' No. 1 E. Bade, 157 ft. from S line and 409 ft. from W line of lease, G. W. Hooper Sur. ..... Derrick.
Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.1-ac. tr., M. Dillard Sur.. Derrick.
Gulf Production Co.'s No. 1 A. King, 120 ft. E and 330 ft. N of SE cor. of church, John Moffit Sur. .... Location.
Gulf Production Co.'s No. 1 R. H. Still, north offset to Turnbow's No. 2 Elder, John Wilkerson Sur. .... Derrick.
Hastings et al's No. 1 Wallace, due SE offset to Victory Smith's No. 1 Knowles, M. Tennison Sur. .. Location.
Harry Hamberry's No. 1 W. E. Foshee, center of 2.56-ac. tract, H. R. Hokit Sur. ..... Location.
J. F. Heard's No. 1 fee, 200 ft. SW of Pace's No. 1 Elder, Mary Van Winkle Sur. ..... Moving in material.
D. M. Hester's No. 1 Crews, 299 ft. W and 166 ft. S of SE cor. of William W. Friar Sur. ..... Derrick.
D. L. Hoffman's No. 1 B. F. Phillips, 330 ft. from E line and center of N and S lines of 16.5-ac. tract, D. Ferguson Sur. ..... Derrick.
Cox Huffman's No. 1 Johnson, center of Blk. No. 10, Gladewater Townsite, H. R. Hokie Sur. ..... Location.
Imperator Oil Co.'s No. 1 Geo. Ritchie, 120 ft. N and 15 ft. W of Monnell and Currie's No. 1 Church, Blk. No. 4, M. Dillard Sur. ..... Derrick.
Jackson and Bradstreet's No. 1 M. Young, center 2-ac. tr., J. R. Crosby Sur. ..... S.D. 200 ft.
Kroll's No. 1 J. Spear, center ¾-ac. lease, Blk. 4, Mary Van Winkle Sur. ..... Set csg. 3,522 ft.
K. B. Oil Co.'s No. 1 Dickson, 150 ft. from S and 150 ft. from W of 5-ac. lease, Mary Van Winkle Sur. .. S.D. 700 ft.
Lucy Petroleum Co.'s No. 1 B. C. Christian, 330 ft. from W line and center of N and S lines of 8-ac. lease, G. W. Hooper Sur. ..... Location.
McBride's No. 1 F. Elder, 205 ft. N and 320 ft. W of SE cor. of 2½-ac. lease, John Wilkerson Sur. ..... Derrick.
Manzell et al's No. 1 C. H. Moore, center of Blk. No. 3, M. Dillard Sur. ..... Rigging up.
Natalie Kimsey's No. 1 C. C. Crews, 330 ft. from N line and center of E and W lines of 60-ac. tr., L. Perkins Sur. ..... Derrick.
Patrick Pet. Co.'s No. 1 Watson, 330 ft. from N line, 330 ft. from E line of lease, M. V. Winkle Sur. .. Derrick.
J. D. Patty et al's No. 1 J. C. McCormick, 307 ft. SE at right angles to Gladewater-Tyler road and 540 ft. SW of Abernathy and Kirkpatrick's No. 1 Gregston, M. Dillard Sur. ..... Drlg. 100 ft.
Pilot Oil Co.'s No. 1 J. C. Bumpass, 330 ft. from S and W lines of 25-ac. lease, W. H. Castleberry Sur. ..... Drlg. 3,350 ft.
Rajo Oil Co.'s No. 1 Barrett, 356 ft. from S line and 330 ft. from W line of Shell's 80-ac. lease, Witcher Sur.. Location.
Roeser & Pendleton's No. 1 J. M. Farmell, 175 ft. from W line and 330 ft. from S line of 43-ac. lease, D. Sanches Sur. ..... Location.
Ross et al's No. 1, located on Findley & Thomas 50-ac. tr., 150 ft. from S line and 6.66-ac. lease, C. H. Alexander Sur. ..... Derrick.
Shell Pet. Corp.'s No. 1 B. F. Laird, N offset to Robertson's No. 1 Elder, John Wilkerson Sur. ..... Rigging up.
Shell Pet. Corp.'s No. 1 S. Fishborn, 330 ft. from N and E lines of 100-ac. lease, F. W. Johnson Sur. .. Location.
Victor C. Smith's No. 1 Knowles, center of Blk. 134, Mary Van Winkle Sur. ..... T.D. 3,570 ft.
Sneed et al's No. 1 Griffin Davis, 28 ft. W and 278 ft. N of SW cor. of Gulf's Davis lease, W. P. Chisum Sur. ..... Drlg. 2,670 ft.
Stanolind Oil & Gas Co.'s No. 1 A. A. Lockhart, 400 ft. from S and E lines of 20.92-ac. tract, M. Tennison Sur. ..... Drlg. 1,045 ft.
Tom C. Patten's No. 1 Geo. Walter, center of 1-ac. tr., and 396 ft. from W line of lease, Mary Van Winkle Sur. ..... Location.
M. E. Trapp et al's No. 1 A. N. Neeley, center of 1.75-ac. tract out of Lion Oil & Refining Co.'s J. R. Williams lease, P. McAnnally Sur. ..... Bldg. derrick.
Travis and Wair's No. 1 A. B. Loughridge, 330 ft. from S line, 590 ft. from E line of 30-ac. lease, Thomas Johnson Sur. ..... T.D. 3,726 ft.
Valentine Oil Co.'s No. 1 Geyne-Hughey, 6,100 ft. from S and 6,800 ft. from W of survey, Mary Van Winkle Sur. ..... Rigging up.

HENDERSON COUNTY

Alma Pet. Co.'s No. 1 T. B. Woodford, located on 629.5-acre tract, 2,500 varas from W line and 1,050 varas from N line of survey, Boly C. Walters Sur. ..... Salt water; T.D. 4,497 ft.
South American Drlg. Co.'s No. 1 D. R. Broone, 330 ft. from N and W lines of SE 40 acres of 425-ac. tr., Thomas Parmer Sur. ..... S.D. 4,374 ft.

HILL COUNTY

Sherman-Houseman's No. 1 J. F. Griffith, in Samuel Waddell Sur. ..... Fishing 3,256 ft.

HOPKINS COUNTY

E. L. Chapman's No. 1 J. D. Jumper, 175 ft. from N line, 285 ft. from W line of lease, Jas. Webb Sur. .. S.D. 230 ft.

Roark et al's No. 1 Taylor, 220 ft. from N and W lines of 80-ac. tr. in the John Polk Sur. ..... S.D. 640 ft.

HOUSTON COUNTY

Apex Drlg. Co.'s No. 1 Thompson Bros., 250 ft. out of NW cor. of 200-ac. tr. in John Shears Sur. ..... T.D. 2,364 ft.
Ramsland and Ramsland's No. 1 Pennington, 750 varas W of E line and 500 varas from S line of survey on 186-ac. tr., Ramond LaGarza Sur. ..... S.D. 1,692 ft.
C. T. McManus' No. 1 Harron, 300 ft. out of NE cor. of 327-ac. tr., J. P. Procella Sur. ..... Spudded and S.D. 87 ft.

HUNT COUNTY

Branson et al's No. 1 Gray ..... Location.
Russell et al's No. 1 Brooks and Quattlebaum ..... S.D. 1,455 ft.

KAUFMAN COUNTY

Hoffpier et al's No. 1 Kaufman County Farm, 210 ft. from N line, 672 ft. from W line of 624-ac. tract, D. Falcon Sur. ..... Derrick.
Standy Darnell et al's No. 1 Sally Pannill ..... S.D. 1,345 ft.

LAMAR COUNTY

G. W. Davy et al's No. 1 McGuston, 450 ft. from S line, 450 ft. from W. line of farm and survey, Galet Wood Sur. ..... Coring 2,742 ft.
Optometrist Oil Club's No. 1 J. M. McFadden, 450 ft. from S and W lines of McFadden E 25-ac. tr., J. Deck Sur. ..... Drlg. 1,904 ft.

LEON COUNTY

Cooper et al's No. 1 Lynch, 4,000 ft. from W line and 250 ft. from S line of Thos. H. Gardner Sur., and in 200 ac. tr. ..... S.D. 1,931 ft.
Salser Drlg. Co.'s No. 1 Dr. J. M. Blair, 1,010 ft. from N line, 1,986 ft. from W line, Sec. 19, Blk. E, Lucia Hibbard Sur. ..... Derrick on ground.

MORRIS COUNTY

Dumas et al's No. 1 Tom Ball, 1,046 ft. from E and 348 ft. from S of 71-ac. tr., A. S. Young hrs. Sur. .. Derrick.

NACOGDOCHES COUNTY

Bunte et al's No. 1 A. F. Boatman, 330 ft. from S and 150 ft. from W of 67-ac. tr., Wm. A. Moore Sur. .... S.D. 1,605 ft.
G. A. Teague's No. 1 Norris, 60 ft. NW of E line and 430 ft. S of road in 73.5-ac. tr., Hosea Y. Barbo Sur.. Derrick.
Gainer et al's No. 1 Nice Well, 18 miles SE of Nacogdoches, 600 ft. from S and 150 ft. from W of Wells tract in A. Cherino Sur. ..... S.D. 3,430 ft.
Joiner and Henson's No. 1 Andy Legg, 330 ft. from N and 330 ft. from W of tract, John Durst Sur. ..... S.D. 3,920 ft.
Scully & Harwell's No. 1 R. I. Driver, 1,500 ft. from SE cor. of P. B. Ballard 125-ac. tr., 15 miles SE of Nacogdoches in Patricia De Torres Sur. ..... T.D. 3,316 ft.
Taylor-Vaughn's No. 1 Dixon Greer, 160 ft. from W and 450 ft. from N lines of 60-ac. tr. in the M. G. Herrera Sur. ..... S.D. 265 ft.
Creighton Drlg. Co.'s No. 1 J. N. Stewart, center of 79-ac. tr. in the Jose Ignacio Y'Barbo Sur. ..... S.D. 3,226 ft.

POLK COUNTY

Humble Oil & Refining Co.'s No. 2-A West Texas Lumber Co., 1,902 ft. S and 70 deg. W along property line from N cor. of survey, thence 100 ft. SW of right of way, M. Chavence Sur. ..... Location.
Sunshine Oil Co.'s No. 1 Brawley, 150 ft. from S line and 250 ft. from E line of W 100 acres of lease, F. Johnson Sur. ..... Location.

RAINS COUNTY

C. H. Bayliss' No. 1 Ownby, 150 ft. N and 1,100 ft. from E of most easterly SE cor. of survey, Alexander Sur. ..... S.D. 4,036 ft.

RED RIVER COUNTY

Droppleman and Bundy's No. 1 J. W. Cunningham, 250 ft. from the S and 1,066 ft. from the E lines of B. M. Ballard Sur. ..... Rig up.
Gibbs et al's No. 1 Mace (old well being drilled deeper), 1,200 varas from S line, 1,500 varas from E line of survey, Wm. Cullam Sur. ..... S.D. 3,520 ft.
Hoffman and Henson's No. 1 H. H. Lennox, 2,790 ft. W and 300 ft. S of most easterly NE cor. of survey, J. E. Edmondson Sur. ..... S.D. 60 ft.
Harris & Joiner's No. 1 E. Howison, 225 ft. S, 185 ft. W of 79-ac. tr., Wm. Humphreys Sur. ..... S.D. 1,940 ft.
Concord Oil Co.'s No. 1 J. R. Dallahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ..... S.D. 2,530 ft.
L. G. Priest's No. 1 J. M. Stiles, 900 varas S and 500 varas E most northerly NE cor. of Jones Bankston Sur. in the Levi Dean Sur. ..... Drlg. 1,670 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tr. in W. M. Bird Sur. ..... Set 10-in. csg. 130 ft.

RUSK COUNTY

C. L. Archer's No. 1 J. H. Stewart, center of 2-ac. tract, E. Thompson Sur. ..... Waiting on cmt. to set; T.D. 3,794 ft.
Barney Carter's No. 1 Jessie Cole, 225 ft. from N line and 160 ft. from E line of 5-ac. tract, D. Shaw Sur. ..... Setting surface csg.
S. P. Borden's No. 1 R. G. Mason, center of 7.5-ac. lease and 286 ft. N and W of NE cor. of Magnolia's Moore tract ..... S.D. 1,120 ft.
Byrd-Frost's No. 1 Buckner, J. E. Peyton Sur. ..... S.D. 2,981 ft.
Everts Drilling Co.'s No. 1 Beasley, 230 ft. from SE line and 150 ft. from E line of tract, T. C. Lloyd Sur. ..... Drlg. 3,178 ft.
Golding and Murchison's No. 1 J. D. Strickland, 330 ft. from N and W lines of 183-ac. tract, M. V. Pena Sur. ..... Location.
Gulf Production Co.'s No. 1 J. W. Shaw, 330 ft. from S and W lines of 39.8-ac. tract, F. Cordova Sur. .... Rigging up.
Hale and Hatchfield's No. 1 C. J. Goforth, 625 ft. from S line and 450 ft. from W line of 13.4-ac. tract, M. J. Pru Sur. ..... Rig up and S.D.
Hathaway et al's No. 1 Gray, J. M. McLain Sur. ..... S.D. 3,196 ft.
H. B. Hiden's No. 1 Varney, 100 ft. from N line, 125 ft. from E line of road, W. G. Tutt Sur. ..... Derrick.
Holland et al's No. 1 S. E. Brox, 330 ft. from N line and 250 ft. from W line of 20-ac. lease, Thomas Grey Sur. ..... Derrick.
Howell's No. 1 Orion and Motley, 200 ft. from N line, 1,270 ft. from W line of survey, J. Lindley Sur. ... Drlg. 1,240 ft.
Humble Oil & Refining Co.'s No. 1 E. W. Naulls, 330 ft. from S and W lines of 73.5-ac. tract, T. J. Martin Sur. ..... Drlg. 2,624 ft.
Humble Oil & Refining Co.'s No. 1 T. Barton, 150 ft. S and 330 ft. E from NW cor. of 50.5-ac. lease, Thomas Grace Sur. ..... Location.
A. W. Jones Oil Co.'s No. 1 J. M. Grant, 346 ft. from S line, 1,076 ft. from E line of 100-ac. tr., T. J. Walling Sur. ..... Fishing 2,410 ft.
La. O. & R. Co.'s No. 1 Jernigan, 330 ft. from S line, 1,032 ft. from W line of 100-ac. lease, McCabe Sur.. Drlg. 3,025 ft.
LaSalle-Davenport and Bledsoe's No. 1 Church, 175 ft. S and 175 ft. E of SE cor. of Sun-Schuler joint lease, J. B. DeCadena Sur. ..... Moving in material.
Moss and Urschel's No. 1 H. L. Griffin, 200 ft. from N line and 150 ft. from W line of 20-ac. lease, Juan Ximenes Sur. ..... Drlg. 2,924 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 H. C. Burton, 1,375 ft. from S line and 330 ft. from E line of 59.5-ac. lease, W. D. Porter Sur. ..... Derrick.
Mid-Kansas Oil & Gas Co.'s No. 1 H. C. and G. W. Burton, 460 ft. from N line and 330 ft. from E line of survey, W. D. Porter Sur. ..... Derrick.
Mid-Kansas Oil & Gas Co.'s No. 1 W. T. Grissom, 330 ft. from N line, 330 ft. from W line of lease, J. B. Brown Sur. ..... Drlg. 2,760 ft.
Albert Nathan's No. 1 Deason, center of 5-ac. tract, Juan Ximenes Sur. ..... T.D. 3,737 ft. in sand.
Overton Ref. Co.'s No. 1 fee, 105 ft. NW of Patton Rhodes' No. 1, F. Cordova Sur. ..... Waiting on cmt. to set 3,808 ft.
Geo. L. Pace's No. 1 E. B. Alford, center of 5-ac. lease, T. J. Moore Sur. ..... S.D. 1,675 ft.
Reynolds-Blankenship & Trapp's No. 1 Church Lot, 200 ft. E of Tex Jersey's No. 1-A Keeling and 50 ft. SW of Hoosier's No. 1-A Neal, F. Cordova Sur. .... Location.
J. T. Reese's No. 1 Marshall Clay, 330 ft. from N and W line of 65-ac. lease, Juan Ximenes Sur. .... Rig up and S.D.
Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ..... Fishing 3,077 ft.
R. E. L. Silvey's No. 1 P. G. Warren, 155 ft. from S line and 96 ft. from E line of 44-ac. tract, John Womack Sur. ..... Derrick.
Sinclair Oil & Gas Co.'s No. 1 W. H. McCord, 144 ft. from N line and 330 ft. from W line of lease, J. B. DeCadena Sur. ..... Spudding.
Sullivan and Burch's No. 1 E. B. Alford, 550 ft. W, 150 ft. S of NE cor. of 75.75-ac. tr., Isaac G. Parker Sur. ..... T.D. 3,690 ft.; waiting on cmt. to set.
The Texas Company's No. 1 W. W. Henry, 330 ft. from S and E lines of 229-ac. tract ..... Drlg. 3,250 ft.
M. L. Thompson's No. 1 Price, Hugh Million Sur. ..... S.D. 3,280 ft.

JOINER POOL—RUSK COUNTY

Armstrong's No. 1 Alford, 151 ft. from S and 1,080 ft. from W of survey, T. J. Moore Sur. ..... Derrick.
Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ..... Bailed dry after small show of gas: T.D. 1,313 ft.

SAN AUGUSTINE COUNTY

A. H. Jones and Tennant's No. 1 A. P. Davis ..... Drlg. 2,472 ft.
Smith and Baker's No. 1 Pickering Lbr. Co., 6 miles N of San Augustine, E. Quick Sur. ..... Derrick.

SMITH COUNTY

Bunte et al's No. 1 Atkinson, 1,000 ft. from S line and 1,000 ft. from N line of 330-ac. tr., Calloway Dean Sur. ..... Derrick.
Teague et al's No. 1 Temple Stone, 330 ft. from E line and 560 ft. SW of Gan and Wagner's No. 1 Stone, R. D. Shaw Sur. ..... Moving in rig.
Welch et al's No. 1 Camp, 327 ft. from W line and 160 ft. from S line of 4.83-ac. lease, Juan Ximenes Sur. ..... Moving in rig.
Williford Co.'s No. 1 S. S. Cook, 2,100 ft. from N line of survey and 330 ft. from E line of tract, Juan Vargus Sur. ..... Location.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ..... S.D. 3,420 ft.
Joiner et al's No. 1 Clayton Brown, 1,300 ft. from E and 400 ft. from most northerly S line of V. Evans Sur... S.D. 2,250 ft.

UPSHUR COUNTY

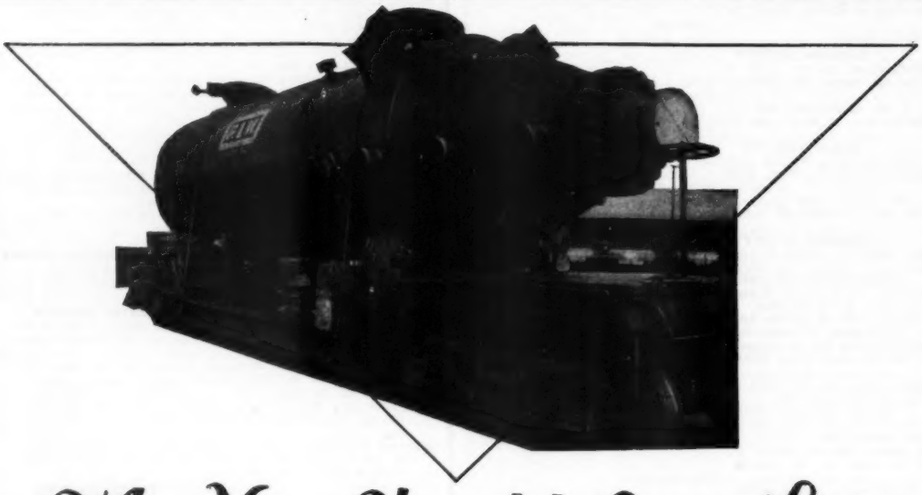
L. G. Bradstreet et al's No. 1 O. M. Victory, 330 ft. from N and E lines of 10-ac. lease, E. A. J. Evans Sur. ..... Location.
Cranfill & Reynold's No. 1 Milton Raab, 1,687 ft. E of W line and 330 ft. N of S line of Rash estate, E. N. Eubanks Sur. ..... Rigging up to pump; T.D. 3,728 ft.
E. & D. Oil Co.'s No. 1 J. W. Free, 200 ft. N and 394 ft. W of SE cor. 20.5-ac. Free tract ..... Drlg. 1,800 ft.
Falvey et al's No. 1 S. D. Rodden, 227 ft. from N line and 330 ft. from E line of 20-ac. lease, M. Mann Sur. ..... Location.
Eslick et al's No. 1 H. F. Whitehurst, 330 ft. out of SW cor. of 5.80 acres of W 40 acres of Whitehurst 100-ac. tract ..... Location.
Gillett-Tarr and Potter's No. 1 D. A. Irion, 330 ft. from N line and center of E and W line of tract, D. A. Lucas Sur. ..... S.D. 3,497 ft.
H. C. Hurley's No. 1 W. F. Smith, 330 ft. from E line and center of N and S lines of S 25 acres of W 50 acres of 100-ac. tr., J. Pineda Sur. ..... Rig up.
Jackson and Bradstreet's No. 1 Victory, center of 25-ac. lease, E. A. J. Evans Sur. ..... Waiting on cmt. to set 3,585 ft.
J. W. Love's No. 1 Bain, 200 ft. from N line, 2,093 ft. from W line of survey, W. H. Williams Sur. ..... S.D. 3,798 ft.
Stanolind Oil & Gas Co.'s No. 1 Arthur Newsom, 900 ft. from S line and 990 ft. from E line of 32.32-ac. tract, Calvin Anderson Sur. ..... Cored from 3,877 to 3,895 ft.
L. E. Trout et al's No. 1 O. M. Victory, 330 ft. from S and E lines of 60-ac. lease, E. A. J. Evans Sur..... Derrick.
Wolf's No. 1 Cook, center of 115-ac. tr. in Jacob Walker Sur., 5 miles W of Rosewood ..... S.D. 1,100 ft.
Wood and Nelson's No. 1 H. S. Coslett, 500 ft. N and W of SE cor. of Coslett 2.48-ac. tract, B. F. Howard Sur. ..... Rig up.

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 225-ac. tr., 3½ miles S of Canton, M. J. DeCadena Sur. ..... S.D. 2,104 ft.
Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tr., John Conner Sur. ..... S.D. 2,300 ft.
Thomasson, Inc.'s No. 2 W. P. Forster, 600 ft. from N and 450 ft. from E of SW cor. of Forster 161-ac. tr. in the F. Montgomery Sur. ..... S.D. 3,200 ft.
Priest et al's No. 1 B. G. Beckham, 150 ft. from S line, 33 ft. from W line of 100-ac. tr., A. S. Johnson Sur.. Drlg. 5,142 ft.
Pure Oil Co.'s No. 2 Mrs. C. White, 350 ft. E of W line, 350 ft. S of N line, John Walling Sur. ..... Derrick.
Pure Oil Co.'s No. 1 D. F. Cade, 350 ft. N of S line of 45.3-ac. tract in Nacogdoches County School Land Sur. ..... Circulating 1,151 ft.
Pure Oil Co.'s No. 1-T V. T. Davis, 400 ft. N of N line of Tunnell No. 8 lease, 480 ft. W of E line of survey, Nacogdoches County School Land Sur. ..... Drlg. 6,738 ft.
Pure Oil Co.'s No. 9 F. B. Smith, 1,180 ft. E of W line and 150 ft. N of S line, John Walling Sur. ..... Drlg. 2,325 ft.
Pure Oil Co.'s No. 2 J. T. Petty, 300 ft. SE of most northerly NW cor. of H. C. Gilbert lease, Nacogdoches County School Land ..... Cmt. setting 309 ft.
Pure Oil Co.'s No. 1 E. Morris, 597 ft. N of S line and 250 ft. E of W line of lease, John Walling Sur. ..... Location.
Pure Oil Co.'s No. 5 Mary P. Nellis et al, 200 ft. N of S line and 225 ft. W of E line of 100-ac. lease, James Ross Sur. ..... Location.
Pure Oil Co.'s No. 2 A. R. Humphreys, 200 ft. S of N line and 225 ft. E of W line of lease, A. McPhail Sur. ..... Location.
The Texas Company's No. 4 R. V. White, 250 ft. E of W line and 200 ft. N of S line of lease, Nacogdoches County School Land ..... Location.
The Texas Company's No. 3 J. A. Bracken, 684 ft. S of N line and 250 ft. E of W line of lease, John Walling Sur. ..... Location.
Van Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... S.D. 2,850 ft.

WOOD COUNTY

Talko Oil Co.'s No. 1 G. T. Ross, B. L. Smith Sur. ..... S.D. 1,550 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 180 ft. from S line of 160-ac. tr. and 2½ miles S of Kantes in Sarah McDonald Sur. ..... Moving in rig.
Yankee Oil Co.'s No. 1 Davis, 330 ft. from S of SW cor. of M. Ryan, Jr. Sur. ..... Drlg. 2,300 ft.



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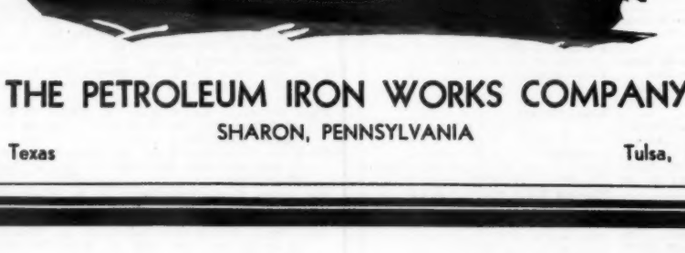


THE PETROLEUM IRON WORKS COMPANY
SHARON, PENNSYLVANIA

Houston, Texas Tulsa, Oklahoma

Brief Items for Petroleum Refiners

Chicago Refiners Start War Against New Market Racket

CHICAGO, Feb. 6.—Officials of major companies today revealed their engagement in a campaign to wipe out a new racket which threatens to break down the public confidence in their products. It is, officials said, a fight against "traitors" in their own camps and involves a considerable number of owned and franchise service stations of the following marketers: Standard Oil Co. (Indiana), Shell Petroleum Corp., The Texas Company, Sinclair Refining Co. and Phillips Petroleum Co. The racket consists in adulteration of these companies' motor fuels with the cheapest natural gasoline blends.

Although six bogus tank wagons carrying the insignia and colors of major companies have been seized in the act of unloading the spurious motor fuel into the tanks of the above named companies in the early hours of the morning, considerable information is being withheld while prosecutions are in preparation against a number of distributors. The operation of this racket is as follows: The service station attendant leaves his "order" under the tank cap and between the hours of 1 and 3 in the morning the required quantity of natural gasoline and heavy naphtha or kerosene blend is delivered. One of the latest developments, however, is a growing quarrel between the racketeering distributor and the service station attendants, the latter charging that they are receiving short measure, investigators find.

Seek Information

The questionnaire distributed by the major companies in their campaign is given here: (1) Do you know of any dumping of gasoline in any of our stations at night by unauthorized tank wagons? (2) If so, specify name of station, time deliveries are made, truck number, license number, etc. (3) Names of all resellers or company-owned stations which in your opinion are not purchasing full quota. (4) Name and location of all stations where gasoline gallonage has dropped considerably. (5) Any complaint of inferior gasoline sold to any customer. (6) All employes should be on the lookout for night dumping and report at once so that this information may be relayed immediately. (7) Have you any knowledge of any oil substitutions or contaminations or the sale of motor oil under our brands through outlets other than those authorized or unauthorized? (8) Have you any knowledge of unmarked trucks making day or night deliveries without the name plates, license plates, etc.? (9) Be on the lookout for stations whose signs indicate they are selling one of the authorized brands in whose stations outside trucks have been seen. Names and addresses of any stations in your territory that you have knowledge of or suspect that night dumps are being made. (10) It is hoped every employe of this company will realize his full responsibility and duty to assist us in the campaign of ridding this territory of this vicious practice.

Prosecutions are also in preparation against distributors and retailers of spurious motor oils sold in faked containers of numerous dependable companies. Investigators for the State and the oil companies have raided a manufacturing plant where cans of nationally known marketers were being made, and among the equipment seized were engraved plates used in printing labels of nearly a score of the reputable brands of lubricating oils.

FIFTY PER CENT DECREASE IN VALUE OF REFINERY EXPORTS

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 8.—Imports of petroleum and products of petroleum declined in value during December, 1931, more than one-third while exports declined almost one-half compared with 1930.

Imports declined in value from $9,842,329 in December, 1930, to $6,128,061 in December, 1931. Exports declined in value from $30,003,815 in December, 1930, to $15,835,400 in December, 1931.

During the 12 months ending December imports of petroleum and products declined in value from $145,116,214 in 1930 to $92,741,374 in 1931. Exports for the same 12 months' period declined from $494,339,235 in 1930 to $270,499,119 in 1931.

These declines in the value of petroleum and products imported and exported during December, 1931, and for the calendar year 1931, compared with the same periods of 1930, are shown in the monthly summary of the Department of Commerce just made available. This tabulation shows for the year 1931 an excess of exports over imports of $177,757,745.

Refined Oils

For the 12 months' period of 1930, refined oils exported totaled 122,167,425 bbls., valued at $438,194,692 declining to 91,008,857 bbls. valued at $232,293,597 in the same period of 1931.

Imports in this same class of refined and advanced oils decreased in the December periods from 3,298,635 bbls. valued at $4,895,885 in 1930 to 2,880,376 bbls. valued at $2,580,257 in December, 1931.

In the 12 months' periods, the decline of imports in this class of products was from 43,380,990 bbls. valued at $78,738,569 in 1930 to 38,702,435 bbls. valued at $52,149,299 in 1931.

Exports of gasoline, naphtha and other finished light products declined almost one-half in quantity and still more in value and gasoline imports showed a marked decline although not as high a percentage as did exports.

The gasoline exports in December, 1930 totaled 4,224,944 bbls. valued at $13,727,530 dropping to 2,539,968 bbls. valued at $5,897,505 in December, 1931.

In the 12 months of 1930 these exports totaled 63,195,331 bbls. valued at $250,646,784, and in the 12 months' period of 1931 declined to 43,786,519 bbls. valued at $109,301,417.

Bulk Shipments

Of the quantity exported in 1931, 41,335,955 bbls. went abroad in bulk. The largest quantity going to one country in 1931 was taken by the United Kingdom, or 13,151,232 bbls., valued at $28,937,505, showing a decline from 19,208,432 bbls. valued at $67,012,822 in 1930. France took 6,132,089 bbls. of gasoline valued at $12,008,771 in the 12 months of 1931 showing a decline from 9,098,

(Continued on Page 95)

FREDERICK EWING TO HEAD STANDARD SALES

Frederick Ewing, who has been a director of the Standard Oil Co. of New York, has been appointed a vice president in charge of sales, succeeding Howard A. Wilkinson who has resigned as director and vice president after 45 years of service with Standard Oil interests. His place on the board of directors has been taken by Brewster B. Jennings.

Frederick Ewing

Mr. Ewing joined the Standard of New York organization in 1928 and the following year he was appointed a director of the company. Previously he had been connected for 14 years with the Pan American Petroleum & Export Co. He started with that company in 1914 as salesman and successively was chief engineer, general sales manager, director and vice president.

Mr. Ewing was born at San Angelo, Tex., and graduated in mining engineering in 1906 at Yale University. He followed that profession until 1912 being employed by the Guggenheim and John Hays Hammond interests. He then joined the Inter Ocean Oil Co. as salesman. With his new work Mr. Ewing will continue to have his headquarters at 26 Broadway, N. Y.

TO INSTALL NEW RERUN UNIT AT ITALIAN PLANT

The Distillazione Italiana Combustibili S.A. known as Dicsa has closed a contract with Arthur G. McKee & Co. covering the installation of a single flash type pressure distillate rerun unit to be located at the company's refinery in Mestre, near Venice, Italy. The contract is in connection with an expansion program costing from $750,000 to $1,000,000. The new unit is to process pressure distillate containing approximately 90 per cent by volume of a 200° C. endpoint gasoline.

The unit will consist of radiant heat type tubular furnace, primary fractionating column and other auxiliary equipment. Under the terms of the contract a portion of the equipment to be furnished is to be fabricated in Italy, but certain special equipment developed in the United States is to be furnished by the McKee company from America. This equipment includes automatic temperature, pressure and flow controls, pumps, heat exchangers, valves and fittings and other special equipment.

The engineers of the McKee firm will supervise construction of the unit, labor to be furnished in Italy. Work will be started immediately, and all material deliveries will be completed within four months.

In 1931 the Dicsa company put into operation a Dubbs flashing unit licensed by the Universal Oil Products Co. More recently a second Dubbs unit of the full flashing type has been licensed and this unit now is under construction. The increased production of pressure distillate necessitated the placing of the contract for the pressure distillate rerun unit.

Italy does not manufacture its gasoline requirements and the duty on the imported gasoline furnishes a large sum to the treasury of the government. In as much as the tax on the manufactured gasoline from the raw materials admitted is not as large as the duties on imported gasoline, Italian refiners have a favorable advantage. Since the increase in cracking refining capacity would decrease the income for the treasury the government issues permits only after a long analysis and study of the situation.

REMODELING BURFORD PLANT AT PECOS CITY

The Burford Oil Co., which owns a 6,000-bbl. daily crude capacity refinery at Pecos City, Tex., is now remodeling its pipe stills. Approximately $200,000 will be spent in overhauling the plant and installing new and modern equipment. The plant operates on Winkler and Ector County crude oil, the company having a pipe line connecting these two producing areas with the refinery.

Headquarters of the company are in the Tower Petroleum Building, Dallas. Freeman Burford is president of the company, and also president of the East Texas Refining Co., which operates two refineries in East Texas, one at Longview, and the other at Friars Switch in Rusk County. The former plant has also been undergoing some changes with new cracking equipment installed.

MAY REOPEN REFINERY

LOS ANGELES, Calif., Feb. 6.—It is reported here that the small lubricating plant of the California Northern Corp., located at Coalinga, may be reopened. E. E. Phillips, formerly of the Kettleman Hills Gasoline Co., with associates is reported to be negotiating for the purchase of the plant which has been shut down for some time. The plant in the past has been manufacturing lubricating oils from the heavy crude oil coming from wells on the west edge of Coalinga.

CROSS PLANT SHUT DOWN

MUSKEGON, Mich., Feb. 8.—The H. H. Cross Refining Co. skimming plant here has been closed since late in December. Reports that the plant was to be dismantled and moved to St. Louis, south of the Mount Pleasant Field were said to be unfounded.

The Cross company may build a new plant at St. Louis, Mich., but it is improbable that it will move the small Muskegon plant across the State. Purchase of Mount Pleasant crude also has been discontinued by the Cross refinery. The company has been getting about 150 bbls. of a total of 1,150 bbls. estimated daily production of the Muskegon Field. The Naph-Sol Refining Co. is running 600 bbls. a day and the Old Dutch Refining Co. about 400 bbls. a day. Muskegon crude supplies of all three plants have been augmented considerably by tank car shipments from Mount Pleasant during the past year.

Manufacture of Natural Gasoline

Proration Order Lowers Oklahoma City Production

Natural gasoline production in the Oklahoma City Field has been reduced at most plants as the result of instituting further restriction on the production of crude effective February 1 but the drop will not be as great as the new proration order would indicate.

Under the order which became effective February 1 the allowable crude production was cut from 120,000 bbls. to 95,000 bbls. daily and this order will remain in effect over the first 15 days. On February 11 another order will be issued to establish the maximum for the last half of the month but it is likely that no change will be made. Natural gasoline plant operations have been thrown further out of balance as the result of the order and in a few instances it is necessary to adopt an intermittent operating schedule. When proration was first instituted in the field there was an excess of gas going to practically all of the larger plants and in the early stages of proration plant yields were less affected as the allowable crude production was cut.

With the shifting of the break-up of the allowable production among the lime wells and the sand wells from time to time there is another factor to contend with in planning the plant's operations. Under the new order only 6,000 bbls. will be allowed to come from the Silicious lime zone, or 1,000 bbls. less than the previous order. This does not alter conditions much, however, as the actual production in January was near the present allowable due to further water encroachment. It is believed that a slightly higher gasoline recovery from the gas coming from these wells is possible now because of small increases being noted in the temperature of the gas as the salt water advances.

In the case of wells outside the lime area a flat exemption of 25 bbls. a day was established in lieu of the 37½ bbls. under the old order. This will permit a production of but 16,875 bbls. from this class of wells now. In the case of wells making 3 per cent water or more, outside of the lime area, a production of 100 bbls. is now permitted, or a total of 8,100 bbls. from this class of wells. Underproduced and underrun oil account for slightly better thatn 50,000 bbls. per day. The remaining 13,775 bbls. were allotted to those wells which were even with proration. After one week of operation under the new order natural gasoline production approximates a quarter of a million gallons daily for all plants.

The I.T.I.O. and Phillips Petroleum Co. account for the great bulk of this production, these companies now producing 176,000 gallons of the 229,000 gallons as the total. The I.T.I.O. is operating four plants and with the jointly owned plant on the Cromwell-Franklin Trosper lease is producing 91,000 gallons a day. The two Phillips plants are operating and making a total of 85,000 gallons.

The production of all plants now operating in the Oklahoma City Field is listed below and may be considered as typical following the revision in the proration order which was made effective February 1.

NATURAL GASOLINE PLANT OPERATIONS IN THE OKLAHOMA CITY FIELD

Company, location—	Maximum gas capacity daily, cu.ft.	Present daily gasoline production
I.T.I.O., Bodine	50,000,000	18,000
I.T.I.O., Button	50,000,000	18,000
I.T.I.O., Verne	50,000,000	18,000
I.T.I.O., Jones	50,000,000	18,000
I.T.I.O. and Cromwell-Franklin Interests, Farley	50,000,000	S.D.
I.T.I.O. and Cromwell-Franklin Interests, Trosper	50,000,000	19,000
Phillips, SW Section 32-11-2w	50,000,000	20,000
Phillips, SW Section 1-11-3w	125,000,000	65,000
Shell, Petty	50,000,000	11,000
Wirt Franklin, Lowry	40,000,000	6,000
Sinclair, NW Section 30-11-2	100,000,000	25,000
Amerada, SE Section 30-11-2w	40,000,000	4,500
Coline, Olds	7,500,000	7,000
Total	712,500,000	229,500

USE GRAPH TO COMPARE ACCIDENT RECORD OVER FIVE-YEAR PERIOD

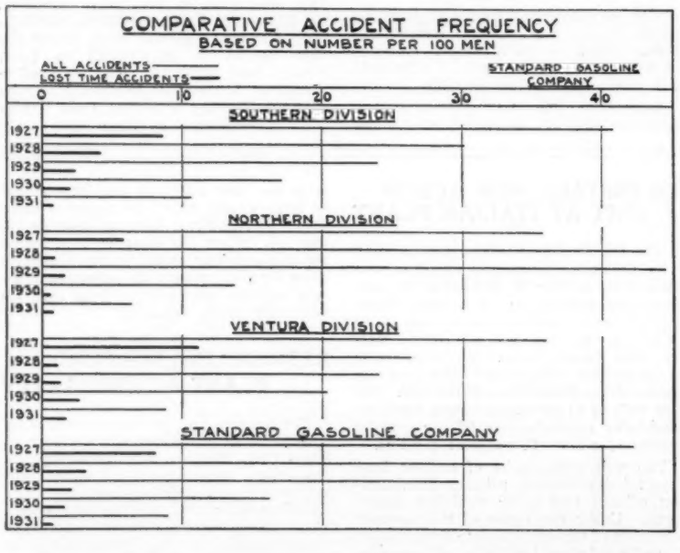
The Standard Gasoline Co. of California believes that a review of past accomplishments is a good practice, especially when sufficient time has passed to afford real perspective. A graph appearing in the "Booster," the company's house organ, affords a means of making this check-up and it might serve as a basis for similar comparisons for others.

"The graph shown herewith constitutes a review of the accident experience of the Standard Gasoline Co. for the past five years showing the frequency of total accidents and lost time cases. These are all figured on the basis of number of accidents per 100 employes so that the statistics are exactly comparable for all divisions and the company as a whole. Generally the trend downward is very consistent and shows quite clearly the result of a conscious effort to eliminate injuries.

"The year 1931 has been a very unusual year, outdoing all previous years in almost every phase of accident prevention. Former records for low monthly totals have been several times lowered, from a company standpoint, starting with six reportable accidents in January, dropping to four in June, two in November and only one in December. Seven calendar months were free from lost time accidents and of the six cases necessitating loss of time three were of very minor import, two of them causing a loss of seven days each and one only one day.

"Naturally the main consideration of every individual after an accident has occurred is the seriousness of the injury or in other words the amount of suffering, loss of time and earning power which is involved. This we term severity and measure in the number of days from duty. Year 1929 had the lowest severity in our experience with an average of 8.2 days for each lost time cases. Year 1930, although having only 15, showed a decided increase due to five cases necessitating a considerable length of time for recovery although four of the five involved no serious consequence. Year 1931 shows a healthy decrease which is decidedly encouraging.

"Much credit is due all employes for the manner in which they have taken hold of this problem during the past year and continued consideration of personal protection should result in another year equally as free if not more so than the one just passed."



FIRE IN SCRUBBING PLANT

CHATHAM, Ontario, Feb. 6.—The natural gas service to Calgary, Lethbridge, and other points in southern Alberta was on January 31 threatened by an explosion in the Royalite Oil Co. scrubbing plant in the Turner Valley Field. Property valued at $1,500,000 was endangered; but prompt work by the company's fire department confined the resulting fire to one scrubbing room, with an estimated loss of not more than $20,000.

Six men on duty at the plant had just moved to another part of the plant before the explosion occurred. The rear end of the scrubbing room, was blown out, the roof torn and the interior wrecked but no one was hurt. Emergency changes in the piping enabled the gas supply for the Canadian Western Natural Gas, Light, Heat & Power Co., consumers in Calgary, Lethbridge, and other places, to be maintained without interruption.

Factors to Watch During Operation Of Gasoline Plant

The distillation equipment of the natural gasoline plant consists of heat exchangers, vent tanks, preheaters, strippers and dephlegmation units. The efficiency of plant extraction as well as the quality of the finished product depends very largely upon the care and attention given to this system, according to "The Booster," the house organ of the Standard Gasoline Co. Inefficient stripping of the lean oil cannot be offset by any other plant adjustments and losses proportional to the lean oil vapor pressure will occur regardless of the quantity of oil circulated, the efficiency of cooling and absorption, or the operation of any other unit of the plant. The losses resulting from poor stripping consist of the heavy hydrocarbons of the gas, consequently they represent the most valuable fraction of the product.

To get the best results from the equipment and reduce losses to a minimum, care must be taken to see that:

1. Loads are evenly distributed between the units.
2. Oil delivery to the heat exchanger is uniform and free of water or emulsion.
3. Vent tank controls are adjusted to give a uniform delivery of oil to the preheaters and to deliver all the vapors coming off at this point to the vapor system.
4. Preheaters are clean and all condensate is continuously being delivered back to the boilers.
5. There are no preheater leaks.
6. Oil is being delivered uniformly to the strippers and stripper float level controls are functioning properly.
7. The proper amount of dry live steam is admitted to the stripper.
8. There is no accumulation of water in the stripper.
9. Stripper pressure is constant and as low as possible.
10. Dephlegmator temperatures are constant.
11. Reflux delivery from the dephlegmator is uniform.
12. Separators are operating properly and that no gasoline is discharging with the water stream.

The recording thermometer on the oil to the strippers serves as the most valuable aid in pointing out distillation equipment difficulties and should be very closely watched at all times.

Any one of the following difficulties will be indicated by this instrument:

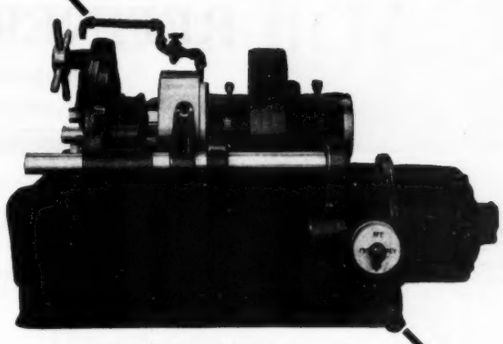
1. Irregular flow of oil.
2. Leaky heat exchanger.
3. Contaminated oil causing emulsion.
4. Priming boilers.
5. Defective return water system.
6. A change in quality of the gas treated.
7. Dirty preheater.
8. Improper vent tank operation.
9. Poor reflux control.
10. Gas locked preheaters.
11. Boiler pressure low.
12. Defective liquid level control in absorbers or strippers.

MAY BUILD IN EAST TEXAS

FORT WORTH, Tex., Feb. 9.—The Stanolind Oil & Gas Co. is assembling enough acreage in southern Rusk County, near the Peyton Brothers' 60,000,000-foot gas well, to make it possible to supply a natural gasoline plant in that area at such a time as marketing conditions permit.

However, at present there has been no definite plans made to actually proceed with construction work.

ENORMOUS SAVINGS



HERE IS SHOWN THE "TOLEDO" NO. 999 EQUIPPED WITH "TOLEDO" QUICK-OPENING DIE HEAD, READY TO CUT A THREAD. NOTE HOW COMPACT AND CLOSE-FITTING.

—are made in the cost of threading pipe with "TOLEDO" Quick-Opening Die Heads. No backing the dies off the completed thread. Just pull the lever, the head opens, and the dies are instantly pulled off the thread.

"TOLEDO" Quick-Opening heads are of special design, compact and fit snugly in the machine. Dies used are the rake type.

The "TOLEDO" No. 999 and No. 1000M can be equipped with Quick-Opening Die Heads. Only a slght change is necessary on the No. 999. There is no change necessary on the No. 1000M.

Three die heads only are required to thread ⅛" to 2" pipe. Each head can be used for two sizes, although a separate head for each size can be furnished if desired. Die heads are adjustable for any depth of thread desired.

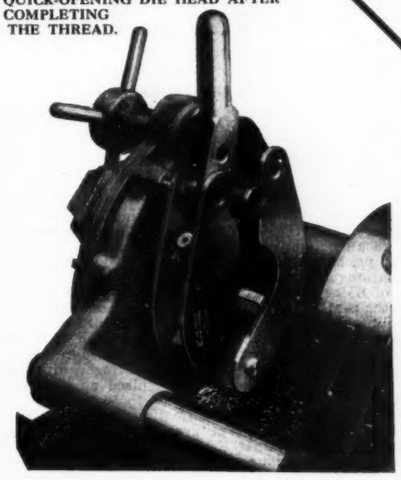
"TOLEDO" Quick-Opening Die Heads increase the speed and efficiency of the pipe machine thus enabling the owner to increase profits.

A circular and full information mailed on request.

THE TOLEDO PIPE THREADING MACH. CO.
TOLEDO, OHIO New York Office, 72 Lafayette St.

"TOLEDO"
FOLLOW "TOLEDO"

HERE IS SHOWN THE "TOLEDO" QUICK-OPENING DIE HEAD AFTER COMPLETING THE THREAD.



Kennedy Malleable-Iron Pipe Fittings
annealed for 200 hours

YOU can be sure of true malleability of Kennedy Fittings because they are annealed for 200 hours—over 8 days—in pyrometer controlled ovens. This long continued process is so thorough that Kennedy Malleable Iron Fittings can be crushed almost flat without cracking. Your pipe fitters and machinists will find that Kennedy Fittings go on the pipe easily and make tight joints quickly as they are strong and accurately machined, as well as being truly malleable.

The Kennedy Valve Mfg. Co., Elmira, N. Y.
Branches in Principal Oil Centers

KENNEDY
VALVES—PIPE FITTINGS—FIRE HYDRANTS

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement unless otherwise noted.

GASOLINES

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
*U. S. Motor	.02¾	.03	.03	.03¼
60-62 400	.03	.03¼	.03¼	.03⅜
64-66 390	.03¼	.03½	.03½	.03¾
64-66 375	.03⅜	.03⅞	.03¾	.04
68-70 350	.03¾	.04	.04	
NORTH TEXAS—				
*U. S. Motor	.02¾	.03	.03	.03¼
60-62 400	.03¼	.03¼	.03¼	.03⅜
64-66 390	.03⅜	.03½	.03½	.03⅝
64-66 375	.03⅝	.03¾	.03¾	.04
64-66 360	.03¾	.04	.04	.04⅛
‡NORTH LOUISIANA—				
*U. S. Motor	.03½	.03¾	.03½	.03¾
60-62 400	.03¾		.03¾	
‡ARKANSAS—				
*U. S. Motor	.03¼	.03½	.03¼	.03½
CHICAGO Based on Okla. (Group 3)—				
*U. S. Motor	.02¾	.03	.02⅞	.03⅛
60-62 400	.03¼	.03⅜	.03¼	.03⅜
64-66 375	.03¾	.04	.03¾	.04⅛
Aviation fighting grade	.04¾	.05¼	.04¾	.05¼
68-70 360	.04⅛	.04⅜	.04⅛	.04⅜

Octane Ratings—Above quotations cover price ranges on gasolines in which no octane rating is given. In the case of the U. S. Motor and 60-62 400 endpoint grades where an octane rating of 57-65, inclusive, is guaranteed, prices are one-half cent per gallon higher than quotations shown in above tables; where an octane rating of 65 or higher is guaranteed, the prices are three-fourths cent higher. In the case of the remaining grades, gasolines of 65 octane rating or higher are quoted one-fourth cent higher than the quotations shown in above tables. Unless otherwise provided by agreement of buyers and sellers, the Series 30 testing equipment of the Ethyl Gasoline Corp. is recognized as standard in determining octane ratings.

*Present distillation specifications on U. S. Motor gasoline are: 10 per cent evaporated, 167° F. maximum; 50 per cent, 284° F. maximum; 90 per cent, 392° F. maximum; residue not exceeding 2 per cent; maximum vapor pressure, 12 pounds. Additional specification on U. S. Motor gasoline available from bulletins of Bureau of Mines, Washington, D. C.

‡For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.04	.04¼	.04	.04¼
60-62 400	.04½	.04¾	.04¾	
64-66 375	.04¾	.05	.04¾	.05
68-70 350	.05½		.05½	

Octane Ratings—In the case of U. S. Motor and 60-62 400 endpoint grades, same price differentials based on octane ratings as shown in above tables for Oklahoma and other Mid-Continent areas.

CALIFORNIA (domestic movement only)—				
54-58 U. S. Motor	.04¾	.05¼	.05	.06
58-60 400	.05½	.06	.06	.06¾
NEW YORK (Bayonne, N. J.)—				
U. S. Motor, below 65 octane number	.05¾		.05¾	
U. S. Motor, min. 65 octane	.06½		.06½	

NAPHTHAS

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
50-52 450 (blending)	.02¾		.02¾	
PENNSYLVANIA—				
50-54 430-450 (blending)	.04		.04	
ARKANSAS—				
48-50 450 (blending)	.03		.03	
CHICAGO Based on Okla. (Group 3)—				
50-52 450 (blending)	.02¾	.02⅞	.02¾	.02⅞
Cleaners' naphtha, 56-58 gr. 200 i.b.p.-320 e.p.	.05⅝	.05⅞	.05⅝	.05⅞
Lacquer diluent, 180 i.b.p.-250 e.p.	.09	.09¼	.09	.09¼
Lacquer diluent, 140 i.b.p.-200 e.p.	.09	.09¼	.09	.09¼
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.05¾	.06¼	.05¾	.06¼
Stoddard solvent, 300 i.b.p.-410 e.p., over 100° flash	.04⅞	.05⅛	.04⅞	.05⅛
Pet thinner, 290, 300 i.b.p.-415 e.p., over 83° flash	.04⅜	.04⅝	.04⅜	.04⅝
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¼	.05½	.05¼	.05½
Petroleum spirits	.03⅞	.04¼	.03⅞	.04¼

NATURAL GASOLINES

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
Grade 18-55	.02	.02⅛		
Grade 26-70	.01½	.01⅝	.02	
Grade 30-70	.01⅜			
NORTH TEXAS—				
Grade 18-55	.02	.02⅛		
Grade 26-70	.01½		.01⅞	
Grade 30-70	.01⅜			
NORTH LOUISIANA—				
Grade 26-70	.01¾		.02⅛	
CALIFORNIA—				
75-78 375	.04½	.05¼	.04½	.05¼

Note—Grades 18-55, 26-70 and 30-70 are three of 24 grades adopted by the Natural Gasoline Association of America effective January 1. The grades are based on pounds vapor pressure and amount evaporated at 140° F. See page 74 of January 7 issue for explanation of new grading system. While not exactly the same specifications apply, Grade 18-55 corresponds to the former A, Grade 26-70 to former Grade AA and 30-70 to former Grade BB.

KEROSENES

(All kerosenes water white.)

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
41-43	.02⅝	.02¾	.02⅝	.02¾
42-44	.02¾	.02⅞	.02¾	.02⅞
NORTH TEXAS—				
40-41	.02⅝		.02⅝	
41-43	.02¾		.02¾	
‡NORTH LOUISIANA—				
41-43	.03	.03¼	.03	.03¼
42-44	.03¼	.03⅜	.03¼	.03⅜
‡ARKANSAS—				
41-43	.03	.03¼	.03	.03¼
PENNSYLVANIA—				
45	.04¼	.04⅜	.04⅜	.04½
46	.04½	.04⅝	.04½	.04⅝
47	.04⅝	.04¾	.04⅝	.04¾
CHICAGO (Based on Group 3)—				
41-43	.02½	.02⅝	.02⅝	.02¾
42-44	.02⅝	.02⅞	.02¾	.03
***CALIFORNIA—**				
38-40 high burning test	.04	.05	.04	.05
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.05¾	.05½	

*For Pacific Coast consumption.
‡For Arkansas, Louisiana and Mississippi delivery.

TRACTOR FUELS*

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
39-41 prime white	.02¼		.02¼	.02⅜
38-40 light straw	.02	.02⅛	.02	.02⅛
NORTH TEXAS—				
38-40 light straw	.02	.02⅛	.02⅛	.02¼
CHICAGO (Basis Group 3)—				
38-40 light straw	.02⅛	.02¼	.02⅛	.02¼
PENNSYLVANIA—				
41-43 prime white	.04¼		.04¼	

*There are no standard specifications for tractor fuels. Grades commonly sold have flash under 175° F. (open cup) and under 575° F. endpoint and less than .2 per cent sulphur. Tractor fuels are available from all Mid-Continent refining groups at prices in line with the Oklahoma market taking into consideration differentials in freight rates.

FURNACE OILS*

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
32-36 straw	.01¾	.01⅞	.01¾	.02
36-38 straw	.01⅞	.02	.01⅞	.02⅛
38-40 straw	.02	.02¼	.02	.02¼
39-41 prime white	.02⅛	.02¼	.02⅛	.02¼
NORTH TEXAS—				
38-40 straw	.02⅛	.02¼	.02⅛	.02¼
‡NORTH LOUISIANA—				
36-40	.02¼	.02½	.02½	.02⅝
‡ARKANSAS—				
32-36	.02	.02¼	.02⅛	.02¼
CHICAGO (Basis Group 3)—				
32-36 straw	.01¾	.02⅛	.01⅞	.02⅛
38-40 straw	.02⅛	.02¼	.02⅛	.02¼
PENNSYLVANIA—				
40-41 prime white	.03½		.03½	
NEW YORK (Bayonne, N. J.)—				
32-36	.03½		.03½	
36-40	.03¾		.03¾	

*Above prices are for furnace oils of zero cold test, under 190° F. flash and good odor.
‡For Arkansas, Louisiana and Mississippi delivery.

GAS OIL, DIESEL OIL AND FUEL OIL

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
32-36 (G.O.) cracking stock	.01⅛	.01¼	.01⅛	.01¼
U.G.I. (G.O.)	.01¼	.01¼	.01⅛	.01¼
32-36, zero to 15	.01¼	.01⅜	.01⅜	.01½
28-30, zero to 10	.45	.50	.45	.50
26-30, zero to 10	.40	.50	.40	.50
24-26	.35	.40	.35	.40
20-22	.25	.30	.25	.30
16-20	.22½	.25	.22½	.25
Below 16	.20	.25	.20	.25
NORTH TEXAS—				
32-36 (G.O.) industrial	.01⅛		.01	
22-26	.40	.45	.40	.45
Below 20	.30	.35	.30	.35
‡NORTH LOUISIANA—				
30-32 (G.O.) zero	.02	.02¼	.02	.02¼
18-22	.30	.40	.30	.40
‡ARKANSAS—				
28-32 (G.O.) zero	.50	.60	.50	.60
16-20	.40	.45	.40	.45
CHICAGO (Basis Group 3)—				
32-36 (G.O.) industrial	.01¼	.01⅜	.01⅜	.01½
28-30 (zero)	.50	.60	.50	.60
22-26	.32½	.37½	.32½	.37½
18-22	.25	.30	.25	.30
Below 18	.20	.25	.20	.25

Note—Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

‡For Louisiana, Arkansas and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.85	1.00	.85	1.00
27 plus Diesel	.80	.95	.80	.95
15-19 bunker (at tidewater)	.60	.80	.60	.80
15-19 bunker (cargo lots)	.55	.75	.55	.75
15-19 (tank cars)	.40	.75	.40	.75
GULF COAST—				
28-30 (G.O.)	.02½	.02¾	.02¾	.03
Bunker C (cargo lots)	.40	.50	.40	.50
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.03½	.04	.03½	.04
*28-30 Diesel	1.30		1.30	
†Bunker C	.60		.60	

*Lighterage 6½ cents per barrel.
†Lighterage 5 cents per barrel.

PETROLEUM COKE*

Prices per ton f.o.b. refineries in Chicago area.

	Feb. 9	
Breeze (screenings)	3.75	
Still run	4.75	
Lump and egg	7.00	7.50

*Refiners will absorb freight up to 80 cents a ton.

NEUTRAL OILS

(Viscosity at 100° F., and Color)

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08½		.08½	
200-4	.08	.08¼	.08	.08¼
240-3	.09⅜	.10	.09⅜	.10
240-4	.09½	.09½	.09½	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10½	.10½	.10½	.10½
300-3.5	.11⅝	.12	.11⅝	.12
350-3.5	.12¼	.12½	.12¼	.12½
400-4	.12⅝	.13	.12⅝	.13
500-4.5	.13¼	.13½	.13¼	.13½
100-2 Paraffin Oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07¾	.08	.07¾	.08
200-4	.07½	.07¾	.07½	.07¾
240-3	.09½	.09½	.09½	.09½
240-4	.08⅝	.09	.08⅝	.09
280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¾	.10
PENNSYLVANIA—				
Viscosity at 70° F., and Color:				
150-3	.13	.13½	.13	.13½
180-3	.16	.17	.16	.17
200-3	.18	.18¼	.18	.18¼
220-3	.20½	.21	.20½	.21
36 Miners Neutral	.05½		.05½	
34 Neutral	.05½		.05½	
34 Sundebloom Neutral	.05		.05	
GULF COAST—				
Pale Oils:				
100-2-2½	.05	.05½	.05	.05½
200-3	.07	.07½	.07	.07½
300-3	.07¾	.08	.07¾	.08
500-3½	.09	.09½	.09	.09½
750-3½	.10	.10½	.10	.10½
1,200-3½	.12	.12¼	.12	.12¼
2,000-4	.14	.14½	.14	.14½
Red Oils:				
200-5-6	.06	.06¼	.06	.06¼
300-5-6	.06¾	.07	.06¾	.07
500-5-6	.08	.08¼	.08	.08¼
1,200-5-6	.11	.11¼	.11	.11¼
2,000-6 plus	.13	.13¼	.13	.13¼
CALIFORNIA—				
130-2½-3	.08¼	.08¾	.08¼	.08¾
200-2½-3	.09½	.10¼	.09½	.10¼
300-3-3½	.10½	.11¼	.10½	.11¼
350-3½-4	.11¼	.12	.11¼	.12
450-3½-4	.12	.12¾	.12	.12¾
550-3½-4	.12¾	.13¾	.12¾	.13¾
200-4½-5	.09¼	.10¼	.09¼	.10¼
300-5-6	.10½	.11	.10½	.11
400-5-6	.11½	.12½	.11½	.12½
500-5-6	.12¾	.13½	.12¾	.13½
600-5-6½	.13½	.14¼	.13½	.14¼
700-6½ plus	.14½	.15¼	.14½	.15¼
NEW YORK (Bayonne, N. J.)—				
Paraffin Oil:				
25 pale	.10¼		.10¼	
28 pale	.07¼		.07¼	
280 red	.12½		.12½	
250 red	.11½		.11½	
225 red	.10		.10	
200 red	.09¼		.09¼	

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement unless otherwise noted.

BRIGHT STOCKS AND STEAM REFINED STOCKS

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
600 light green S.R.	.04	.06	.04	.06
600 dark green S.R.	.03	.04½	.03	.04½
Bright Stock:				
190-200 D	.18½		.18½	
150-160 D, 0-10	.16½		.16½	
150-160 D, 10-25	.16		.16	
150-160 D, 25-40	.15½		.15½	
150-160 E	.15	.15½	.15	.15½
PENNSYLVANIA—				
600 S.R.	.11	.11½	.11	.11½
650 S.R.	.13¾	.14	.13¾	.14
600 Pennsylvania flash	.15	.16	.15	.16
600 E filtered	.14	.15	.14	.15
600 D filtered	.17½	.18	.17½	.18
Pennsylvania Grade Bright Stock:				
10-15 pour test	.21	.23	.20	.21
25-30 pour test	.19½	.20	.19	
35 and above	.19	.19½	.18½	.19

WAX AND PETROLATUM

(Prices per pound.)

OKLAHOMA (Group 3)—	Feb. 9		Feb. 2	
124-126 white crude scale	.01⅝	.01¾	.01⅝	.01¾
PENNSYLVANIA—				
At New York:				
122-124	.02⅛		.02⅛	
124-126	.02⅛		.02⅛	
NEW YORK (Bayonne, N. J.)—				
Refined Wax:				
120-122	.02⅝		.02⅝	
125-127	.02⅞		.02⅞	
130-132	.03⅛		.03⅛	
133-135	.03¾		.03¾	
135-137	.04⅛		.04⅛	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02¼		.02¼	
Extra amber	.02⅝		.02¾	
Cream	.04¾		.04¾	
Lily white	.05¾		.05¾	
Snow white	.06¾		.06⅞	

EXPORT PRICES

GASOLINE

GULF COAST—	Feb. 9	Feb. 2
U. S. Motor	.04½	.04½
60-62 400 endpoint	.04⅞	.04⅞
61-63 390 endpoint	.04⅝	.04⅝
64-66 375 endpoint	.04¾	.04¾

LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.04	.04½	.04	.04½
U. S. Motor, 65 octane num.	.05		.05	
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-62 400 endpoint gasoline	.04½		.04½	

KEROSENE

GULF COAST—				
41-43 prime white	.04¼		.04¼	
41 water white	.04½		.04½	
LOS ANGELES, CALIF.—				
41-43 water white	.04	.04¾	.04	.04¾

LUBRICANTS

NEW YORK (Bayonne, N. J.)—				
600, steam refined cylinder stocks, in bbls.	.19	.20	.19	.20
650, steam refined	.22½	.23	.22	.23
600, Pennsylvania flash	.23	.24	.24	.25
630, Pennsylvania flash	.26	.27	.27	.28
600, Warren E	.22½	.23	.22½	.23
600, Oil City E	.21½	.22	.21½	.22
Light 140-150 Bright Stocks	.27	.28	.27	.28
Dark 140-150 Bright Stocks	.26	.27	.26	.27

CALIFORNIA CRUDE OIL PRICES

STANDARD OIL CO. OF CALIFORNIA

For its current purchases of crude oil at the well (unless otherwise specified) the allowable crude oil produced in accordance with allocations made by the California Statewide Curtailment Committee. All gravities above those quoted take highest price offered in that field. Effective June 19, 1931 at 7 a.m.

Gravity	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Olinda-Brea, Canon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$.65	...	$.55	$.55
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	...	.55	.55
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	...	.55	.55
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	...	.55	.55
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	...	.55	.55
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	...	.55	.55
20-20.9	.65	.65	.65	.66	.66	.65	.65	.65	...	.55	.55
21-21.9	.65	.65	.65	.68	.67	.65	.66	.65	...	.55	.57
22-22.9	.65	.65	.66	.70	.68	.66	.68	.65	...	.56	.59
23-23.9	.67	.67	.68	.72	.70	.67	.70	.66	...	.58	.60
24-24.9	.69	.69	.70	.74	.72	.68	.72	.67	$.65	.61	.62
25-25.9	.71	.71	.72	.76	.74	.70	.74	.69	.65	.64	.64
26-26.9	.73	.73	.74	...	.76	...	...	.71	.65	.66	.65
27-27.9	.75	.75	.76	...	.78	...	...	.73	.68	.68	.67
28-28.9	.77	...	...	...	.80	...	...	.75	.71	.71	.69
29-29.9	.79	...	...	...	...	...	...	.77	.73	.74	.71
30-30.9	.81	...	...	...	...	...	...	.79	.75	.76	.72
31-31.9	...	...	...	...	...	...	...	...	.78	...	...
32-32.9	...	...	...	...	...	...	...	...	.80	...	...
33-33.9	...	...	...	...	...	...	...	...	.83	...	...
34-34.9	...	...	...	...	...	...	...	...	.85	...	...
35-35.9	...	...	...	...	...	...	...	...	.87	...	...

Standard Oil Co. of California prices in other fields:

Wheeler Ridge—55 cents per barrel for all grades (14° to 25.9°).

Coalinga—55 cents for all grades from 14° to 24-24.9°; 57 cents for 25 gravity.

Newhall, McKittrick and Kern River—55 cents for all grades (14° to 19.9°).

Montebello—65 cents for all grades (14° to 25.9°).

Whittier and LaHabra—65 cents for all grades (14° to 22.9°).

Elwood Terrace, f.o.b. ship—33° to 33.9°, 79 cents; 34° to 34.9°, 81 cents; 35° to 35.9°, 84 cents; 36° and above, 87 cents.

Playa Del Rey—Prices subject to field gathering charge of 5 cents per barrel—19° to 19.9°, 65 cents; 20° to 20.9°, 65 cents; 21° to 21.9°, 66 cents; 22° to 22.9°, 67 cents; 23° to 23.9°, 68 cents; 24° to 24.9°, 67 cents; 25° and above, 68 cents.

(Continued on Page 91)

CRUDE OIL PRICES

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

East Texas (Nov. 2, 1931)†.....$ .83
Corsicana heavy (Nov. 2, 1931)*..... .49
Other fields.....See gravity table

†Posted by Panola Pipe Line Co., Magnolia Petroleum Co., Tidal Refining Co., Sinclair Refining Co., Gulf Pipe Line Co., Atlas Pipe Line Co. *Magnolia Petroleum Co.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective December 16, 1931)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field) $1.85
Pennsylvania Grade Oil in Southwest Pennsylvania Lines 1.55
Penna Grade Oil in Eureka Pipe Line Lines (West Virginia) 1.45
Penna Grade Oil in Buckeye Pipe Line Lines 1.25
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Nov. 9, 1931) ..... .85
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 16, 1931) ... .80
Wayne district Oil in Cumberland Pipe Lines (April 23, 1931) 1.17

Tide Water Pipe Co.
(Effective December 16, 1931)

Bradford, Pa. $1.85
Allegany, N. Y. 1.85

Pure Oil Co.
(Effective December 16, 1931)

Cabin Creek, W. Va. $1.45
Bradford Hollow, W. Va. 1.45
Kelly's Creek, W. Va. 1.45

Pennzoil Co.
(Effective December 16, 1931)

Pennsylvania Grade Oil in National Transit Lines:
Group A $1.80
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B $1.79
Includes Titusville district.
Group C $1.78
Includes Turkey and Tidiout districts.
Group D $1.77
Includes Bear Creek and Perkey districts.
Group E $1.75
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinsua districts.
Price depends on length of pipe line haul to plant at Oil City.

TEXAS PANHANDLE

Gray County, Wheeler County and Carson-Hutchinson Counties....See gravity table

ROCKY MOUNTAIN STATES

Ohio Oil Co.-Midwest Refining Co.

Iles, light (Aug. 24, 1931) .....$ .75
Iles, heavy (Aug. 24, 1931) ..... .53
Fort Collins (Nov. 2, 1931) ..... .71
Florence (Nov. 2, 1931) ..... .65
Wellington (Nov. 3, 1931) ..... .61
Dutton Creek (Nov. 3, 1931) ..... .75
Rock Creek, Wyo. (Nov. 3, 1931) ..... .85
Frannie, light (Nov. 3, 1931) ..... .61
Frannie, heavy (Nov. 3, 1931) ..... .51
Salt Creek.....Mid-Continent gravity table
Big Muddy (Nov. 3, 1931) ..... .83
Grass Creek (Nov. 3, 1931) 1.05
Elk Basin (Nov. 3, 1931) 1.05
Lance Creek (Aug. 24, 1931) 1.05
Poison Spider (Mar. 5, 1931) ..... .70
Notches (Mar. 14, 1927) ..... .65
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1931) ..... .40
Rex Lake (Feb. 22, 1930) 1.10
Osage (Apr. 15, 1931) ..... .93
Lost Soldier (Nov. 3, 1931) ..... .69
Hamilton Dome (Nov. 3, 1931) ..... .45
Greybull (Nov. 3, 1931) 1.05
Cat Creek (Nov. 3, 1931) 1.05
Pondera (Nov. 3, 1931) ..... .90
Sunburst, Mont. (Nov. 3, 1931) 1.00
Hogback, N. Mex. (Aug. 24, 1931) .... .80
Lea County, N. Mex. (Nov. 3, 1931).. .50
Border, Mont. 1.55
Red Coulee, Alberta 1.55
Dry Creek, Mont. (Aug. 24, 1931) 1.00
Maljamar (Aug. 22, 1931) 1.00
Artesia-Jackson (Nov. 3, 1931) ..... .50

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull and Hogback posted by Midwest Refining Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Border and Red Coulee posted by Imperial Refining Co. Lea County posted by Humble Oil & Refining Co. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

(Continued on Page 86)

CRUDE OIL GRAVITY TABLE

Gravity	1 Kansas and Oklahoma	2 North and Central Texas	3 East Central Texas	4 Gray County, Texas	5 Carson and Hutchinson Counties, Texas	6 Salt Creek, Wyo.	7 North Louisiana and Arkansas	8 Gulf Coast (Tex. and La.)	9 Cameron Meadows, La.
Below 25 degrees	...	...	...	...	...	...	...	$.70	$.60
25-25.9 degrees	...	...	...	...	...	...	...	.71	.69
26-26.9 degrees	...	...	...	...	...	...	...	.72	.61
27-27.9 degrees	...	...	...	...	...	...	...	.73	.62
28-28.9 degrees	...	...	...	...	...	...	...	.74	.63
Below 29 degrees	$.61	$.61	$.61	...	...	$.61	$.61	...	...
29-29.9 degrees	.63	.63	.63	...	...	.63	.63	.75	.64
30-30.9 degrees	.65	.65	.65	...	...	.65	.65	.76	.65
31-31.9 degrees	.67	.67	.67	...	...	.67	.67	.77	.66
32-32.9 degrees	.69	.69	.69	...	...	.69	.69	.78	.67
33-33.9 degrees	.71	.71	.71	...	...	.71	.71	.79	.68
34-34.9 degrees	.73	.73	.73	$.61	$.56	.73	.73	.80	.69
35-35.9 degrees	.76	.76	.75	.63	.58	.76	.76	.81	.70
36-36.9 degrees	.77	.77	.77	.65	.60	.77	.77	.82	.71
37-37.9 degrees	.79	.79	.79	.67	.62	.79	.79	.83	.72
38-38.9 degrees	.81	.81	.81	.69	.64	.79	.81	.84	.73
39-39.9 degrees	.83	.83	.83	.71	.66	.79	.83	.85	.74
40 degrees and over	.85	.85	.85	.73	.68	.79	.85	.86	.75

Column 1—Led by Continental Oil Co. effective November 2, 1931, and adopted on same day by other companies excepting Magnolia Petroleum Co. and White Eagle Oil Corp. and excepting that Carter Oil Co., Gypsy Oil Co., and Pure Oil Co. started their schedule at below 25 degrees, 53 cents; 25 degrees, 55 cents; with 2 cents added for each degree upward to 40 degrees and above at 85 cents. Magnolia Petroleum Co. adopted the price schedule in Oklahoma on January 8, 1932, and the White Eagle Oil Corp. in Kansas on January 1, 1932, on oil from 29 degrees upward, but posted 52 cents for oil below 28 gravity and 54 cents for 28 gravity.

Column 2—Led by Continental Oil Co. effective November 2, 1931, and followed by other purchasers on same day excepting Magnolia Petroleum Co. which met the prices on January 8, 1932, from 29 degrees upward, posting 52 cents for oil below 28 degrees and 54 cents for 28 gravity oil.

Column 3—Humble Oil & Refining Co. on November 2, and by other buyers excepting Magnolia Petroleum Co., which met the prices from 29 degrees upward on January 8, 1932, but posted 52 cents for oil below 28 degrees and 54 cents for 28 gravity oil.

Column 4—Led by The Texas Company, November 2, followed by Humble Oil & Refining Co., Gulf Pipe Line Co. and H. F. Wilcox Oil & Gas Co. same day. Magnolia Petroleum Co., January 8, 1932.

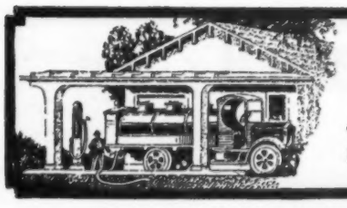
Column 5—Led by The Texas Company, November 2, followed on same day by Humble Oil & Refining Co. and Gulf Pipe Line Co. Magnolia Petroleum Co., January 8, 1932.

Column 6—Midwest Refining Co., November 2.

Column 7—Standard Oil Co. of Louisiana, November 4, 1931; The Texas Company, Gulf Refining Co. and Louisiana Oil Refining Co. same day. Magnolia Petroleum Co., January 8, 1932.

Column 8—Led by The Texas Company, November 2, followed on same day by Humble Oil & Refining Co., Vacuum Oil Co., Gulf Pipe Line Co. and Sun Oil Co., but two last named companies' schedules stop at 35 degrees and above at 81 cents, and the Sinclair Refining Co., but latter company's schedule stops at 31 degrees and above at 71 cents. Magnolia Petroleum Co. applied this schedule to Lockport and Iowa, La.

Column 9—Magnolia Petroleum Co., January 8, 1932.



TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns Feb. 10.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Chicago	15.0	15.0	3.0	9.0
Decatur, Ill.	15.5	15.5	3.0	9.1
E. St. Louis	14.3	14.3	3.0	8.3
Joliet	15.5	15.5	3.0	9.1
Peoria	15.5	15.5	3.0	9.1
Quincy	15.3	15.3	3.0	8.9
Davenport, Ia.	15.6	15.6	3.0	9.4
Des Moines	15.6	15.6	3.0	8.1
Keokuk	15.6	15.6	3.0	6.4
Sioux City	15.2	15.2	3.0	9.0
Duluth, Minn.	16.6	16.6	3.0	10.0
Mankato	16.2	16.2	3.0	8.1
Minneapolis	16.3	16.3	3.0	10.0
LaCrosse, Wis.	17.3	17.3	4.0	10.1
Milwaukee	16.2	16.2	4.0	9.0
Madison	16.4	16.4	4.0	9.2
Detroit, Mich.	14.5	14.5	3.0	9.1
Grand Rapids	15.3	15.3	3.0	10.7
Saginaw	13.2	13.2	3.0	10.9
Evansville, Ind.	16.2	16.2	4.0	10.0
Indianapolis	16.4	16.4	4.0	10.2
South Bend	16.5	16.5	4.0	8.1
Fargo, N. D.	18.0	18.0	3.0	12.0
Huron, S. D.	17.4	17.4	4.0	10.8
Sioux Falls	16.9	16.9	4.0	10.5
K. C., Mo.	15.0	15.0	3.0	7.9
Springfield*	15.0	15.0	3.0	8.6
St. Louis*	14.0	14.0	2.5	8.4
St. Joseph	14.6	14.6	3.0	7.6
Wichita, Kans.	13.9	13.9	3.0	6.1
Bartlesville, Ok.	13.1	15.1	4.0	7.1

*State tax 2 cents, remainder city tax.

A third grade of gasoline, "Stanolind Blue," is sold at all major points at a price 1½ cents or more below the price on the regular grade.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 3 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

SOUTHWESTERN DISTRICT

Magnolia Petroleum Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	15.0	16.0	4.0	8.0
Fort Worth	15.0	16.0	4.0	7.0
Houston	14.0	16.0	4.0	8.0
San Antonio	14.0	16.0	4.0	7.0
El Paso	16.0	18.0	4.0	10.0
Texarkana	14.0	16.0	4.0	8.0
Muskogee, Ok.	13.0	14.0	4.0	6.0
Okla. City	15.0	17.0	4.0	7.0
Tulsa	15.0	17.0	4.0	8.0
Ft. Smith, Ark.	*17.5	18.0	6.0	*11.0
Little Rock	*18.5	18.0	6.0	*11.0

One-cent rebate made from posted station prices to cash purchasers in Louisiana, Arkansas and Tennessee.

*Less 2 cents to dealers.

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Denver, Colo.	12.0	15.0	4.0	12.5
Pueblo	12.0	15.0	4.0	12.0
Grand Jctn.	18.0	21.0	4.0	14.5
Casper, Wyo.	15.0	18.0	4.0	10.0
Cheyenne	†14.0	14.0	4.0	11.5
Butte, Mont.	17.0	20.0	5.0	16.8
Billings	20.0	23.0	5.0	14.5
Great Falls	21.0	23.0	5.0	16.0
Helena	20.0	23.0	5.0	16.0
Salt Lake, Utah	17.5	20.5	4.0	16.0
Albu'que, N. M.	17.0	20.0	6.0	14.0
Boise, Idaho	21.0	24.0	5.0	18.0
Twin Falls*	20.5	20.0	5.0	18.0

*2½-cent discount off tank wagon to dealers.

†3-cent discount off tank wagon to dealers

OHIO

Standard Oil Co. (Ohio)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Ohio points	15.5	16.0	4.0	*12.0

Dealers and commercial accounts 2 cents under tank wagon.

*Service station price 13 cents.

PENNSYLVANIA-DELAWARE AND PART OF NEW ENGLAND

Atlantic Refining Co.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Pittsburgh, Pa.	15.0	16.0	3.0	11.0
Philadelphia	14.0	15.0	3.0	11.0
Scranton	15.0	16.0	3.0	11.0
Allentown	15.0	16.0	3.0	11.0
Altoona	15.0	16.0	3.0	11.0
Erie	15.0	16.0	3.0	11.0
Dover, Del.	15.0	16.0	3.0	11.0
Wilmington	15.0	16.0	3.0	11.0
Springf'd, Mass.	15.5	16.5	3.0	8.5
Worcester	15.3	16.3	3.0	8.5
Boston	14.5	15.5	3.0	9.5
Providence, R.I.	13.5	14.5	2.0	8.5
Hartford, Conn.	14.5	15.5	2.0	10.0
New Haven	14.6	15.6	2.0	10.0

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.*	19.5	19.5	6.0	9.0
Augusta	20.0	21.0	6.0	14.0
Macon	20.0	20.0	6.0	12.0
Savannah	19.0	19.0	6.0	12.0
Birm,ham, Ala.	20.5	20.5	6.0	10.0
Mobile	20.0	20.0	5.0	10.0
Montgomery	21.5	21.5	6.0	13.5
Jackson, Miss.	17.0	17.0	5.5	11.5
Vicksburg	18.0	16.5	5.5	8.0
Jack'ville, Fla.	19.0	19.0	7.0	11.0
Miami	21.0	23.0	7.0	13.0
Pensacola	20.0	20.0	7.0	13.0
Tampa	19.0	19.0	7.0	12.0
Lexington, Ky.	17.0	18.0	5.0	10.0
Covington	16.0	17.0	5.0	12.0
Louisville	15.0	16.0	5.0	10.0
Corbin	18.0	19.0	5.0	15.0

A third grade "Kyso Green," is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fourth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent levy tax. To Gulfport state tax add privilege tax of 2 cents. To Mobile state tax add 1-cent city tax and 2½ cents county tax.

Effective April 2 price to dealers 2 cents under posted tank wagon price.

*An additional discount of 1 cent is offered to dealers effective October 6.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	16.7	16.7	3.0	11.5
Newark	14.7	15.7	3.0	10.5
Annapolis, Md.	16.3	17.3	4.0	10.0
Baltimore	15.4	16.4	4.0	8.0
Cumberland	17.3	18.3	4.0	12.0
Wash'g'n, D.C.	13.9	14.9	2.0	10.0
Danville, Va.	18.0	19.0	5.0	11.8
Norfolk	16.5	17.5	5.0	10.3
Petersburg	17.5	18.5	5.0	11.3
Richmond	16.5	17.5	5.0	10.7
Roanoke	18.3	19.3	5.0	12.0
Charles'n, W.Va.	16.7	17.7	4.0	11.5
Parkersburg	15.4	16.4	4.0	10.3
Wheeling	16.6	17.6	4.0	11.4
Charlotte, N. C.	16.0	17.0	6.0	10.7
Hickory	19.8	20.8	6.0	12.6
Mt. Airy	19.7	20.7	6.0	12.5
Raleigh	19.4	20.4	6.0	12.3
Salisbury	19.7	20.7	6.0	12.5
Charleston, S.C.	17.5	18.5	6.0	10.3
Columbia	19.4	20.4	6.0	12.3
Spartanburg	19.7	20.7	6.0	12.5

Two cents per gallon discount off retail tank wagon price of gasoline to dealers except Washington, D. C., and States of Maryland and New Jersey, where discount is 3 cents.

Prices shown above are for standard gasoline.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	16.6	17.6	2.0	15.6
New York*	13.3	14.3	2.0	14.3
Buffalo	15.8	15.8	2.0	14.8
Rochester	16.0	16.0	2.0	14.0
Syracuse	16.8	16.8	2.0	14.8
Boston, Mass.	16.5	16.5	3.0	13.5
Augusta, Me.	18.3	18.3	4.0	14.3
Manch'tr, N. H.	18.4	19.4	4.0	14.0
Burlington, Vt.	19.3	19.3	4.0	15.3

*Prices in steel barrels.

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Omaha	14.9	15.9	4.0	9.25
McCook	17.0	17.0	4.0	7.5
Norfolk	16.75	17.75	4.0	9.75
N. Platte	17.75	18.75	4.0	10.50
Scottsbluff	17.0	17.0	4.0	9.0

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

PACIFIC COAST TERRITORY

Standard Oil Co. of California

	Gasoline: Tank truck	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero. tank wagon
Fresno	12.5	16.5	3.0	17.0
San Francisco	12.5	16.5	3.0	15.5
Los Angeles	12.0	16.0	3.0	15.5
Reno, Nev.	16.0	20.0	4.0	19.0
Portland, Ore.	14.0	18.0	4.0	16.5
Seattle, Wash.	15.0	19.0	5.0	16.5
Tacoma	15.0	19.0	5.0	16.5
Spokane	18.5	22.5	5.0	20.5
Pheonix, Ariz.	14.5	17.0	5.0	20.0

Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

*Retail prices posted by Standard Stations, Inc., a subsidiary.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	15.5	15.5	6.0	10.0
Baton Rouge	17.0	17.0	5.0	12.0
Alexandria†	14.0	14.0	6.0	12.0
Lafayette*	18.0	18.0	6.0	12.0
Lake Charles*	16.5	16.5	6.0	12.0
Shreveport	17.0	17.0	5.0	12.0
Knoxville, Tenn.	21.5	21.5	7.0	13.5
Memphis	17.5	17.5	7.0	11.0
Chattanooga	20.0	21.0	7.0	11.0
Nashville	20.0	20.5	7.0	12.5
Bristol	20.0	20.0	7.0	14.0
Lt. Rock, Ark.	18.0	18.0	6.0	11.0

*Includes city tax of 1 cent. Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

†Gasoline price at Alexandria includes 1-cent tax in parish of Rapides.

Two-cent discount off gasoline and kerosene tank wagon price to dealer and commercial accounts.

NAPHTHA

	Tank wagon	Tank car
Oleum spirits	10.7	6.23
V.M.P. naphtha	12.7	7.73
Cleaners' naphtha	15.2	9.23
Stanisol	15.2	9.23

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

STANOLIND FURNACE OIL IN CHICAGO

Effective July 1, prices f.o.b. Chicago, tank wagon prices: 1 to 99 gallons, 8 cents; 100 gallons or more, 6 cents.

Stanolex Fuel

Effective May 9, f.o.b. Chicago, tank wagon prices: 1 to 199 gallons, 7 cents; 200 gallons or more, 5 cents. Sinclair met this by bringing down the price of its No. 3.

Fuel Oils

Chicago tank wagon prices (in lots of 400 gallons and over): 38-40 straw distillate, 6 cents; 32-36 gas oil (light zero), 5.5 cents; 32-36 gas oil (industrial), 5.25 cents; 28-30 zero fuel oil, 5 cents; 24-26 fuel oil, 4.25 cents; 18-22 fuel oil, 3.75 cents.

TANK WAGON CHANGES

Standard Oil Co. (Indiana) effective February 1 advanced gasoline tank wagon price at Minneapolis, Minn., from 14.5 to 16.3 cents.

Standard Oil Co. of Kentucky effective February 1 reduced kerosene tank wagon price at Atlanta, Ga., to 9 cents. Effective February 1 same company reduced kerosene tank wagon price at Louisville, Ky., to 10 cents.

Standard Oil Co. of Louisiana effective February 2 reduced tank wagon and service station prices one-half cent in Alexandria, La., to 8 cents.

CRUDE OIL PRICES

(Continued from Page 85)

WEST TEXAS

Iatan and Weatbrook..Same as North Texas	
Crane, Upton, Crockett, Howard, Glasscock, Ector, Winkler and Pecos Counties*	$ .50
Lea County, N. Mex.‡	.50
Toborg, Pecos County, Aug. 25, 1931†	.25

*The Texas Company, November 2, 1931; Magnolia Petroleum Co., Humble Oil & Refining Co., Gulf Pipe Line Co., same day. †Shell Petroleum Corp. ‡Humble Oil & Refining Co., The Texas Company, November 2, 1931.

GULF COAST

Grade A and Grade B classifications discontinued by leading buyers	
	See gravity table
Jennings, La. (Nov. 2, 1931)*	$ .65
Lockport, La. (Aug. 27, 1931)†	
	See Gulf Coast gravity table
Refugio light	See gravity table
Refugio heavy (Nov. 2, 1931)‡	.75
Markham (Nov. 2, 1931)§	.67
High Island (Nov. 2, 1931)¶	.65

*Gulf Refining Co. †Vacuum Oil Co. ‡Humble Oil & Refining Co. §The Texas Company. ¶Gulf Pipe Line Co.

NORTH LOUISIANA AND ARKANSAS

Smackover, Ark. (all grades) (Nov. 4, 1931)	$ .55
Urbana, Ark.	See note below
Bellevue, La. (June 3, 1931)	.25
Urania, La. (Nov. 2, 1931)	.50
Calion, Ark. (Aug. 22, 1931)	.52
East El Dorado, Ark. (Nov. 4, 1931)	.55
Stephens, Ark., below 29° (Aug. 24, 1931)	.41
Stephens, Ark., 29° and above (Aug. 24, 1931)	.44
Other fields	See gravity table

Note — Smackover, all grades, Standard Oil Co. of Louisiana, The Texas Company, Gulf Refining Co., Magnolia Petroleum Co., Bellevue posted by Magnolia Petroleum Co.; Urania by H. L. Hunt, Inc., and Louisiana Oil Refining Co.; Calion by Gulf Refining Co.; East El Dorado by Gulf Refining Co. and Magnolia Petroleum Co.; Stephens, Ark., by Louisiana Oil Refining Co. and Atlantic Oil Producing Co.

SOUTH CENTRAL AND SOUTHWEST TEXAS

Darst Creek (Nov. 2, 1931)‡	$ .60
Luling (Nov. 2, 1931)†	.49
Mirando (Nov. 2, 1931)†	.75
Pettus (Nov. 2, 1931)*	.85
Salt Flat (Nov. 2, 1931)*	.60
Thrall§	
Lytton Springs (Lockhart)	See gravity table
Dobrowolski¶	
Same as Mid-Continent gravity scale up to and including 38-38.9°.	
Somerset¶	
Same as Mid-Continent gravity scale up to and including 38-38.9°.	

‡The Texas Company. *Humble Oil & Refining. †Magnolia Petroleum Co. §Thrall prices same as North Central Texas less 19½ cents per cwt. freight. ¶Grayburg Oil & Refining Co., Pioneer Oil & Refining Co. and Texas Petroleum Products. ¶Pioneer Oil & Refining Co.

MIDDLE WESTERN STATES

Ohio Oil Co.

(Effective November 3, 1931)

Lima	$1.00
Wooster	1.16
Illinois	.95
Indiana	.60
Princeton	.95
Plymouth	Shut in
Western Kentucky	.90
Midland, Mich. (Oct. 9, 1931)*	.55
Dundee, Mich.†	
Same as Stanolind Crude Oil Purchasing Co.'s Mid-Continent gravity scale	
Upper and Lower Traverse Sands, Mich.†	
Same as Mid-Continent gravity scale	
Somerset, Ky. (Nov. 4, 1931)	.30
Hart County, Ky. (Jan. 18, 1932)‡	.60

*Posted by Pure Oil Co. †Posted by Standard of Indiana for boat shipment. ‡Posted by Stoll Refining Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through its own pipe line.

MEXICO

Panuco*	$ .45

*F.o.b. ship, based on October transactions and exclusive of production and export taxes and bar dues.

CANADA

Ontario (Nov. 3, 1931):	
Petrolia*	$1.90
Oil Springs*	1.97
Alberta (Aug. 24, 1931):	
Turner Valley†:	
Crude oil 45-45.9	2.03
Crude oil 50 and above	2.65
Crude naphtha	3.12
Discolored naphtha	2.88

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Of Interest to Sales Departments

California Motor Fuel Sales Total Billion and Half

Eighty-six refining and jobbing companies distributed 1,401,545,000 gallons of gasoline in California last year according to a report compiled by the Oil Producers Agency of California. The Standard Oil Co. of California led as usual in sales with a total of over 276,000,000 gallons or 20 per cent of the total.

The gallonage of the first six companies in the state, each of which totaled over 100,000,000 gallons, totaled 964,000,000 gallons or approximately 70 per cent of the total. The gallonage of the next six companies exceeded 175,000,000 gallons.

The following report gives the gallonage of each company on which the state tax was paid:

Company—	Total sales 1931, gals.
Standard Oil Co.	276,057,589.9
Shell Oil Co.	197,773,835.7
Associated Oil Co.	121,766,240.6
Union Oil Co.	136,045,507.7
Richfield Oil Co. of Calif.	111,279,464.6
General Petroleum Corp.	121,179,024.7
Wilshire Oil Co.	53,842,785.5
The Texas Company	52,485,641.1
Rio Grande Oil Co.	45,343,808.5
Signal Oil & Gas Co.	27,434,375.8
Western O. & R. (rec.)	25,133,572.4
Sunset Pacific Oil Co.	5,795,271.8
Macmillan Pet. Co. (R. C. Gillis and R. C. Macmillan, rec.)	20,814,692.6
Caminol Oil Co.	11,944,161.2
Hancock Oil Co.	32,809,305.5
Petrol Corp.	13,614,342.6
Champion Oil & Ref.	5,744,095.1
Seaside Oil Co.	12,286,984.4
The Norwalk Co.	7,747,006.7
Chas. W. Fourl (Monarch)	5,567,097.7
St. Helen's Pet. Corp.	9,164,327.7
Edington-Witz Ref. Co.	13,214,675.1
Palisades Oil & Ref. Co.	7,761,531.7
Wm. P. Andrews Oil Co.	9,034,430.7
Estado Pet. Corp.	14,180,581.3
R. R. Bush	1,934,480.6
Kettleman Hills Gasoline Co.	5,845,906.3
Exeter Oil Co.	5,832,086.6
Hercules Gasoline Co. (E. L. Pauley, rec.)	12,880,887.5
Union Pacific Oil Co.	6,709,465.6
Lake View Oil & Ref. Co. (Paul J. Hisey, rec.)	3,965,827.1
California Refiners (Springs O. & R. Co.)	1,347,333.7
Cherry Oil Co.	1,223,549.1
Vernon Oil & Ref. Co. (rec.)	2,495,622.0
Brown & Sullivan	492,698.5
Torrance Oil & Ref. Co.	100,331.3
Gilmore Oil Co.	1,717,941.2
Cole & Herman	73,006.1
Oscar Samuelson	111,474.5
Continental Oil Co.	463,567.0
Capital Crude Oil Co. of L.A.	158,436.1
Harry L. Kingsbury	191,826.0
Greater Santa Cruz Oil Corp.	4,537.3
Coline Gasoline Corp.	32,161.2
J. D. Cameron	55,086.9
Honolulu Oil Corp.	44,433.7
Petroleum Specialties	3,979,868.4
Ethel D. Oil Co.	19,413.5
G. F. Getty, Inc.	1,649.4
Ohio Oil Co.	18,582.2
Italio Pet. Corp. (rec.)	16,397.2
Fullerton Oil Co.	5,766.5
Rice Ranch Oil Co.	7,856.8
Carson Valley Oil Co.	43,525.8
Holly Oil Co.	3,529.0
El Camino Co., Ltd.	3,285,242.9
Refinery Properties, Ltd.	2,484,067.0
Southwest Ref. Co.	2,132,954.7
W. E. Morrison	1,453,436.0
Lathrop Inv. Corp.	1,092,060.3
Producers & Refiners	905,090.4
Vulcan Ref. Co.	702,777.5
Fi-n-ol Ref. Co., Ltd.	517,618.0
F. N. Rumbley	292,272.3
Grover Lawler	229,592.9
Dale E. Wood	221,903.0
W. G. Phillips	64,050.5
Consolidated Pacific Ref., Inc.	55,109.4
Midstate Cons. Oil Co.	47,668.2
A. T. Ingalls	43,491.6
Sunland Ref. Co.	26,043.0
Quality Oil Co. of Nevada	24,617.0
C. A. Jones	23,130.3
A.B.C. Oil Co.	20,873.0
Vapor-Phase Ref. Co.	20,314.0
Kinnebrew, Mark	17,563.5
Bardeen Petroleum Co., Ltd.	16,770.8
H. E. Woods	14,747.4
W. Fries Hansen	14,024.0
Transit Oil Co., Ltd.	12,720.5
Myers & Hampton	9,030.3
W. H. Growney	8,175.7
B. M. Stites	6,161.6
Navy Oil Co.	4,980.0
W. J. Cochran	820.2
Bernett R. Curry	701.0
Total	1,401,545,204.7

CHICAGO DISTRIBUTORS PLAN UNIFORM CONTRACT

CHICAGO, Feb. 8.—Adoption on February 15 of a uniform contract among practically all of the burning oil distributors in Chicago area appears certain this week as indications point to a unanimous sentiment in this direction within the membership of the Burning Oil Heat Institute. The contract committee of the institute has indicated the lines to be taken in the new contract and has been directed with the approval of the directors and members to complete the contract form for submission to a vote at the mid-February meeting. Members of the contract committee are: E. L. Hughes, president of Hughes Oil Co., chairman; Floyd Moore, vice president of Seneca Petroleum Co., and C. R. Johnswold, vice president of Lynch-Clarisey Co.

Adherence of the majority of institute members to the adoption of a uniform contract which will eliminate practices which have promoted ill-will among distributors, and the avowal by the dissenting minority that they would abide by the ruling of the majority of the membership, were facts brought out in a round table discussion of the institute last week. C. O. Frisbie, president of the institute, presided. Representatives of 32 of the larger marketing companies attended. These companies were: Standard Fuel & Furnace Co., Sterling Fuel Oil Co., Suburban Oil Co., Skokie Oil Co., George C. Peterson Co., Black Hawk Oil Co., Walter Martens Co., Ivory Oil Co., Blue Ribbon Oil Co., Pure Oil Products Co., Edinger & Sons Co., Shure Fyre Oil Co., Nilles-Braun Oil Co., Cities Service Oil Co., Apex Motor Fuel Co., Arrow Petroleum Co., Braun Brothers, Commerce Petroleum Co., Hughes Oil Co., Hayes Fuel & Oil Co., Jewett & Sowers Oil Co., Keller-Hart Co., Lord Lumber Co., Lynch-Clarisey Co., National Fuel Oil Co., Murphy Miles Oil Co., North Shore Petroleum Co., Northwest Petroleum Co., Seneca Petroleum Co. and Spencer Petroleum Co.

ADVANCE GASOLINE DUTIES

NEW YORK, Feb. 8.—An Argentine taxation decree published on January 20 and effective partly on that date and partly on January 25, has established duty and tax changes affecting gasoline. The decree establishes a new internal tax of 0.03 pesos per liter on imported or domestic gasoline, effective January 20. This tax is in addition to the highway funding tax on gasoline of 0.02 paper peso per liter (0.03 in the Province of Buenos Aires).

The additional provisional import duty applying on most goods, of 10 per cent of the official valuation, or of the c.i.f. Buenos Aires value when no official valuation is provided, which was originally established on October 9, 1931, for a maximum period of one year, is extended to December 31, 1932, by the same decree.

JAPAN BUYS FUEL OIL

NEW YORK, Feb. 9.—Japanese buyers have purchased approximately 150,000 bbls. of bunker fuel oil in the California market during the past few days it is indicated by charters closed for tankers to move this oil to Japan. All of the business closed so far is for March shipment.

It is reported in shipping circles that inquiries for additional tankers are pending indicating further substantial shipments of fuel oil to Japan. It is believed that this oil is required for fuel for the Japanese navy.

APPOINT A. F. H. PAYNE ASSISTANT SALES HEAD

A. F. H. Payne, who has been connected with the Shell Petroleum Corp. since 1919, has been appointed assistant sales manager of the coporation with headquarters in St. Louis, Mo. His first connection with the Shell corporation was

A. F. H. Payne

with the St. Louis office where he was employed as salesman. Later he was manager of the Indiana division and in 1929 was recalled to St. Louis to be assistant to the manager of the distributing department.

Mr. Payne's new duties will be to further the unification of the operations of the corporation in the 25 states in which its products are sold.

GERMANS STANDARDIZE FUEL

A standard motor fuel, made up of 70 per cent petroleum and 30 per cent alcohol and benzol, to be marketed at controlled prices, is a feature of the new German petroleum regulations which, according to European reports this week, will result in a virtual monopoly. The plan calls for domestic production of 50 per cent of the German motor fuel requirements, the remaining quantities to be imported under a quota system, with the allocation of import quotas to be used as a weapon in securing reciprocal trade agreements with other countries. German production will center in the I. G. Farbenindustrie Leuna works and the new Elwerath-Preussag refinery at Misburg, Hanover.

LAUNCH LARGE TANKER

NEW YORK, Feb. 6.—Standard Shipping Co., marine subsidiary of Standard Oil Co. (New Jersey), this week launched its new tanker, "Robert L. Hague," built at the Cosulich shipyards at Monfalcone, Italy. The new tanker is named for Mr. Hague, vice president of the New Jersey company, and president of Standard Shipping.

Mrs. Hague, who was formerly Mary Lewis, soprano of the Metropolitan Opera House, christened the boat as it started down the ways.

The new tanker is reported to be the largest tanker ever built in Italy. It has a dead weight tonnage of 17,800, motive power being furnished by Fiat Diesel engines.

MARKETERS IN ENGLAND EXPECT PRICE ADVANCE

NEW YORK, Feb. 6.—British marketers will shortly put into effect a sharp advance in retail prices for gasoline and other refined products, to bring their markets in line with changed conditions resulting from the depreciation in British foreign exchange, according to reports from London.

While official advices are lacking, it is understood that the principal companies have already agreed upon a general advance, which will be named as soon as the rate of increase is agreed upon. The recent consolidation of marketing operations by the Royal Dutch-Shell and Anglo-Persian groups, it is pointed out, has substantially improved the competitive situation in United Kingdom markets.

The Royal Dutch-Shell and Anglo-Persian combine, it is reported, have been negotiating with independent marketers, and the pending advance will be made simultaneously by all marketing interests, including Anglo-American Oil Co., Ltd., British affiliate of Standard Oil Co. (New Jersey).

The pending price increase, taken in conjunction with a further expected advance in prices to result from the expected imposition of a 10 per cent import duty on refined petroleum products March 1 in the United Kingdom, will substantially increase petroleum prices to consumers throughout the islands.

MAY COMPROMISE ON 3-CENT TAX IN NEW YORK

NEW YORK, Feb. 6.—The Republican majority of the New York legislature, in receiving Governor Roosevelt's proposals for new tax measures, has announced its disapproval of the governor's plan to increase the state gasoline tax from 2 to 4 cents per gallon, and has decided to make the new rate of taxation on gasoline sales 3 cents per gallon. While the measure has not been formally adopted as yet, and political maneuvering may change the situation, it appears probable that the 3-cent rate will be made effective.

In as much as state officials have made it clear that none of the expected new revenue from gasoline sales taxes will be applied to road construction, but that the increased income will be applied to other state functions, organized resistance to any increase has developed. The petroleum industries committee, headed by Frederick Ewing, vice president of Standard Oil Co. of New York, and with W. J. Filer, vice president of Shell Eastern Petroleum Products, Inc., and W. V. Hartman, vice president of Gulf Refining Co., on its executive board, is actively opposing any increase in the gasoline tax rate and will appear before a committee of the legislature in support of their stand. Petitions bearing the signatures of hundreds of thousands of New York State motorists, protesting against a rise in the tax rate, will be submitted. The company is working actively in conjunction with other bodies which are also opposing the tax increase.

INCREASE HOLLAND TAX

The government of Holland has announced the imposition of a special import tax of 6 florins per 100 kilos on all gasoline, including stocks on hand. This special duty, with the recently increased import levy, makes the total tax on imported gasoline 7.25 florins per 100 kilos. The special tax will hold until December 31, 1934, unless withdrawn by government action earlier.

At current exchange rates the florin is valued at 40.25 cents.

Standard [N. J.] Declaration Welcomed

Market Sentiment Improves as Company's Action Sets at Rest Fears Engendered by Bear Reports. Markets Remain Irregular

By A. E. Mockler
New York Bureau, The Oil and Gas Journal

NEW YORK, Feb. 8.—Action of the Standard Oil Co. (New Jersey) in maintaining its dividend rate with the declaration of the regular quarterly dividend of 25 cents per share and the usual extra dividend of 25 cents per share has had a pronounced effect in improving market sentiment, in so far as the oils are concerned.

Bearish reports have been circulated in the market for the past month or more indicating that the New Jersey company would abandon its extra dividend, these reports being based both on the lessened earnings of the petroleum industry in general and the redemption by the Jersey company, out of cash on hand, of $30,000,000 in bonds.

Although the demonstrated soundness of New Jersey's position has definitely improved the feeling in market circles regarding petroleum securities, the oil stocks, in keeping with the remainder of the market, are still showing some irregularity.

There is a growing demand, however, for a number of the dividend-payers in the oil group, notably New Jersey, Standard of Ohio, preferred, and a number of the pipe line units.

California Standard

Standard Oil Co. of California has reduced its annual dividend rate from $2.50 to $2 per share, declaring a quarterly dividend of 50 cents per share.

Nebraska Standard

Standard Oil Co. of Nebraska has declared the regular quarterly dividend of 50 cents per share, payable March 21 to stock of record February 27.

Union Tank Car Co. has declared the regular quarterly dividend of 40 cents per share, payable March 1 to stock of record February 15.

Cumberland Pipe

Cumberland Pipe Line Co. has been removed from unlisted trading privileges on the New York Curb Exchange.

The Curb Exchange has admitted to unlisted trading privileges liquidation receipt certificates of Cumberland Pipe Line Co.

Petroleum Corp.

Petroleum Corp. of America announces in its annual report for 1931 that it has added to its portfolio 323,000 shares of Tide Water Associated Oil Co. As of December 31, 1931, the corporation reports net assets equivalent to $6.51 a share on the 2,346,460 common shares outstanding, as compared with $13.81 a share on 2,735,000 shares outstanding at the close of 1930. Investments at current prices at December 31, 1930, with subsequent additions at cost of $34,082,098 had a marked value on December 31, 1931, of $14,023,468, indicating an unrealized depreciation of $20,058,630.

Petroleum Corp.

Because of the market conditions which prevailed during 1931, Petroleum Corp. of America repurchased 389,140 shares of its own capital stock at an average price below net asset value both at the close of the year and at the time the purchases were made, according to John H. Markham, Jr., president. The stock is being held in the treasury pending the annual meeting when formal action for its retirement probably will be taken.

During the year ended December 31, 1931, the corporation purchased 465,200 shares of stock, while it sold 95,357 shares, making the net change 369,843 additional shares held on December 31, 1931, which were not in the portfolio at the end of the preceding year. The largest block purchased consisted of 323,000 shares of Tide Water Associated Oil Co. common, none of this company's securities having appeared in the holdings of the previous year. Changes in the portfolio of Petroleum Corp. of America during the year ended December 31, 1931, were as follows:

	Dec. 31, 1931	Dec. 31, 1930	Inc.	Dec.
General Amer. Tank Car	.....	5,000	.....	5,000
Int. Pet.	12,300	.....	12,300	.....
Ohio Oil	77,700	90,000	.....	12,300
Phillips Pet.	.....	10,657	.....	10,657
Prairie O. &G.	583,700	582,800	900	.....
Socony-Vac.	*129,000	.....	.....	.....
Standard Oil Indiana	10,500	15,000	.....	5,000
Standard Oil New York	.....	*18,000	.....	.....
Tide Water Associated	323,000	.....	323,000	.....
Vacuum Oil	.....	*44,400	.....	.....

*Standard Oil of New York was exchanged share for share of Socony-Vacuum and Vacuum Oil was exchanged on basis of one share for 2⅓ Socony-Vacuum.

Canfield Oil

Canfield Oil Co. has declared a quarterly dividend of $1 per share on the common stock, against $1.75 paid previously. The regular quarterly dividend of $1.75 on the 7 per cent preferred was declared. Both are payable March 31 to stock of record March 20. In addition, a regular quarterly dividend on the common stock of $1 per share, payable June 30 to stock of record June 20, was declared.

Getty Buys Pacific Western

J. Paul Getty interests have acquired a controlling intrest in the Pacific Western Oil Corp. through purchases in the open market. The Getty estate recently sold approximately 1,800 acres in the Kettleman Hills Field to Shell Oil Co. of California for approximately $4,500,000, and reports indicate that a portion of this money has been employed to repurchase a Kettleman Hills position at a lower price through Pacific Western, which owns valuable production at Kettleman Hills, in addition to its holdings at Elwood and in other high gravity fields in California.

American Republics

American Republics Corp. reports for the year ended December 31, 1931, net loss of $4,156,308 after all charges and reserves, against loss of $927,675 in 1930.

Humble Oil

At Humble Oil & Refining's annual meeting in Houston, Tex., President W. S. Farish told stockholders that the company would show approximately $3,000,000 addition to surplus after dividends for 1931, largely through adjustments in the surplus account.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb, based on closing quotations for Wednesday, was as follows:

June 3	18.00	Oct. 7	15.86
June 10	19.62	Oct. 14	16.43
June 17	19.23	Oct. 21	17.58
June 24	22.33	Oct. 28	16.80
July 1	22.33	Nov. 4	18.86
July 8	21.24	Nov. 11	18.76
July 15	19.79	Nov. 18	17.60
July 22	21.33	Nov. 25	16.68
July 29	20.68	Dec. 2	16.09
Aug. 5	20.80	Dec. 9	15.38
Aug. 12	21.00	Dec. 16	12.60
Aug. 19	24.25	Dec. 23	12.06
Aug. 26	23.26	Dec. 30	12.31
Sept. 2	22.30	Jan. 6	12.69
Sept. 9	20.28	Jan. 13	13.63
Sept. 16	18.30	Jan. 20	13.14
Sept. 23	17.64	Jan. 27	12.79
Sept. 30	15.83	Feb. 3	13.19

METRIC SYSTEM OFFERED AS A SPUR TO BUSINESS

Compulsory adoption of the metric system of weights and measures would afford this country the "new thing" needed to start business on the upgrade, according to W. F. Stoody in an interesting article in the current number of "Fusion Facts," published by the Stoody Co., Whittier, Calif. Mr. Stoody points out that some of the schemes suggested involve projects that never would yield any return. He says the change to the metric system eventually will be made and that this is the time to do it.

"If this country were to make the metric system compulsory," says Mr. Stoody, "it would take about 10,000,000 of the now unemployed men at least a year to get things in shape to make the change and another year to catch up the loose ends and make the change complete. There is not any kind of machine tool in the country but would have to be changed to some extent. To mention a few of them—every lathe would have to have its lead screw and some of the gears and feeds changed, milling machine cutters, drills, taps, dies, etc., would all have to be changed to conform to the new standard. Blueprints, books, formulas, etc., would be revised and reprinted. Steel shapes, bars and plate sizes would be changed and the machinery for making them changed as would be pipe size, and thread cutting tools, bolts, nuts, in fact everything that is now 'standard' in length, area, capacity or weight would eventually be changed to conform to new standards that would be simpler and would be more versatile in their use. We would have a chance to get rid of a lot of standards that are not standard but are peculiar to a locality or to an industry."

26 BROADWAY CLUB MEETS

NEW YORK, Feb. 6.—More than 700 officers and employes of the 26 Broadway Club attended the tenth annual dinner and ball of the club held in the grand ballroom of the Waldorf-Astoria here this week. Brief addresses were made by Chester O. Swain, general counsel and a director of the company; S. B. Hunt, vice president; K. L. Patterson of Stanco, president of the 26 Broadway Club; Miss Ruth Etzold, second vice president of the club; and J. W. Saybolt, former president of the club.

STANDARD OIL STOCKS ON NEW YORK CURB

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.

(Complete record week ending Jan. 30)

1931 High	1931 Low	Week ended Jan. 30 Sales	Week ended Jan. 30 High	Week ended Jan. 30 Low	Close Feb. 3	Stocks—	Outstanding capital	Par value	Div. rate	Payable or last paid	1928 High	1928 Low	1929 High	1929 Low	1930 High	1930 Low
..	..	No sales	..	..	..	Atlantic Lobos	499,448	N.P.	....	5-28-30	..	..	..	..	1	¼
6	6	No sales	..	..	..	Borne Scrymser	$1,000,000	$25	....	10-15-30	56½	44½	46½	25	25	11¼
35	33½	200	35	34	..	Buckeye Pipe Line	$10,000,000	$50	$1Q	3-15-32	76	53	74½	55	69	39⅞
81	75	300	80¾	80⅜	..	Chesebrough Mfg.	$3,000,000	$25	$1Q‡	12-30-31	161	117	210	130	184⅞	104¼
2¼	1¾	10,400	2¼	2	2⅛	Creole Petroleum (sh)	5,977,872	N.P.	....	.....	17½	9½	11¾	5⅜	7⅞	3
28	23	No sales	..	..	..	Eureka Pipe Line	$5,000,000	$100	$1Q	2- 1-32	88	64⅛	70½	40	54¾	26
46⅜	42¾	1,800	43½	43¾	42⅞	Humble Oil & Refining	$74,103,300	$25	50cQ	1- 1-32	114¾	59½	128	74⅛	119	57¼
8⅞	7⅝	2,500	8⅝	8½	8½	Imperial Oil of Canada (new) (sh)	25,421,768	N.P.	12½cQ	12- 1-31	104	56¾	41	22	30	15
6½	6½	No sales	..	..	6½	Indiana Pipe Line (new)	$3,000,000	$10	25cQ	2-15-32	91⅞	74⅜	41⅞	26	41	14½
10⅛	8¾	4,600	10	9½	9⅝	International Petroleum (new) (sh)	14,247,088	N.P.	25cQ	12-15-31	55	35	30⅜	15	24	11⅜
8	6⅞	No sales	..	..	8	National Transit	$6,362,500	$12.50	25cQ	12-15-31	32⅜	19⅜	25⅛	10⅛	22⅜	11½
9¾	7½	100	7¾	7¾	..	New York Transit	$1,000,000	$10	25cQ	1-15-32	75	38½	17½	10	21⅜	10½
34	30	150	32	31	..	Northern Pipe Line	$2,000,000	$50	$2SA	1- 2-32	69	56½	63	41	54	26¼
6	5⅛	No sales	..	..	..	Penn Mex Fuel	$10,000,000	$25	50c	10-31-31	84	28	44½	20	32	12
12	9⅝	900	10	9⅞	10	South Penn Oil	$30,000,000	$25	25cQ	12-31-31	71⅞	36¾	60¼	35⅛	45⅞	16⅛
9	8	300	9	9	..	Southern Pipe Line	$1,000,000	$10	50cQ	3- 1-32	19	15	22½	13	20⅞	8⅜
32	32	No sales	..	..	..	Southwest Pennsylvania Pipe Line	$1,750,000	$50	$1Q	12-31-31	102	70	70	60	64	32
16⅞	14	12,600	16	15	15¼	Standard Oil of Indiana	$348,175,069	$25	25cQ	3-15-32	95⅞	70⅞	63	45	59⅞	30
14⅛	12	4,800	14	13	13½	Standard Oil of Kentucky	$25,654,516	$10	40cQ	12-31-31	179¾	122¼	46⅞	29	40½	18⅝
19	15¾	No sales	..	..	..	Standard Oil of Nebraska	$4,649,225	$25	50cQ	3-21-32	54⅞	39⅞	50¼	40	48⅞	34⅝
28⅛	24	200	25¼	24¾	..	Standard Oil of Ohio	$14,000,000	$25	62½cQ	1- 2-32	134	71	129	60	108½	43¼
..	..	No sales	..	..	..	Swan-Finch Co. (sh)	34,480	$25	....	1-15-29	23¼	16	18	10	10	4

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus 50 cents extra.

INDEPENDENT OILS ON NEW YORK CURB

Quotations Compiled by Francis, Bro. & Co., Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.
(Complete record week ending Jan. 30)

1931 High	1931 Low	Week ended Jan. 30 Sales	Week ended Jan. 30 High	Week ended Jan. 30 Low	Close Feb. 3	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1928 High	1928 Low	1929 High	1929 Low	1930 High	1930 Low
½	¼	500	⅜	⅜	..	American Maracaibo	(sh)	700,000	N.P.	....	.....	9½	3⅛	8⅝	1⅛	4½	½
8⅞	8¾	No sales	..	..	..	British American Oil Corp.		1,311,321	N.P.	20cQ	1- 2-32	55	32¾	62	7⅞	23	13⅜
⅝	¼	1,300	⅝	½	..	Carib Syndicate		$131,250	25c	....	.....	4½	3⅞	4⅞	1	2¾	⅝
6¾	5	29,700	6	5½	5⅝	Cities Service	(sh)	24,290,359	N.P.	30cA§	2- 1-32	90⅞	54	68⅛	20	44¼	13
52	44¼	500	49⅞	49¼	48	Cities Service pfd.	(sh)	1,500,000	N.P.	50cM	2- 1-32	103¼	94½	98¾	84	93⅞	78¼
1/16	1/16	No sales	..	..	..	Colombia Syndicate		$2,000,000	$1	....	.....	3¼	.76	2	½	¾	⅛
1	1	100	1	1	..	Consolidated Royal		$5,527,875	$10	5cQ	1-25-32	8⅞	6¼	11⅛	2½	5⅞	2
½	⅜	100	⅜	⅜	..	Crown Central		.....	....	....	.....	..	..	..	..	..	..
2	1⅝	500	2	1¾	..	Darby Petroleum (new)		1,019,392	N.P.	....	10-15-30	33½	3¼	26	6½	21¾	4¼
2⅛	1½	100	2	2	..	Derby Oil & Refining	(sh)	500,000	N.P.	....	.....	2¼	1	11	2	11	2
..	..	No sales	..	..	..	Derby Oil & Refining pfd.		48,500	N.P.	....	.....	21⅜	7½	44	20¾	60	30
31⅞	25⅜	3,900	29⅛	28	..	Gulf Oil Corp.	(sh)	4,504,921	$25	....	10- 1-31	165	101⅛	209	115	166⅞	58½
¼	⅛	6,400	1/16	⅛	⅛	Intercontinental Petroleum		$5,682,000	$5	....	.....	3⅜	1	2⅞	⅜	1¾	⅝
½	⅜	No sales	..	..	..	Kirby Petroleum	(sh)	750,000	N.P.	....	.....	3	1¼	3⅝	1¼	3	⅞
½	¼	1,100	1/16	1/16	..	Leonard Oil & Development		$50,000,000	$25	....	.....	9⅜	5⅛	6⅛	1	4¾	½
2⅛	2⅛	No sales	..	..	..	Lion Oil & Refining	(sh)	250,000	N.P.	....	10-27-30	43⅞	20	38⅞	18	29	4⅞
9¼	7¾	2,800	8¾	8¼	8⅛	Lone Star Gas	(sh)	5,000,000	N.P.	22cQ	12-31-31	69⅛	48½	67⅞	28	55⅞	19⅝
⅛	1/16	1,200	⅛	1/16	..	Magdalena Syndicate	(sh)	850,000	$1	....	.....	1⅞	½	1¼	½	½	⅛
4	3¾	200	4	4	..	Margay Oil Corp.		160,000	N.P.	....	7-10-30	48½	32	38½	14	16	3
..	..	No sales	..	..	..	Mexico-Ohio Oil Co.		500,000	N.P.	....	.....	8	2¾	6⅜	2¼	7½	1¾
..	..	No sales	..	..	..	Mountain & Gulf		$4,000,000	$1	....	4-15-31	1¾	.76	1½	½	¾	⅝
3	2¼	No sales	..	..	..	Mountain Producers		$1,682,182	$10	20cQ	1- 2-32	28⅞	19½	22⅞	7	12⅛	3⅜
⅝	⅜	900	½	⅜	..	New Bradford Oil		$1,095,291	$5	....	4-15-31	5⅝	4¼	5	2½	3½	1⅛
⅞	¾	400	¾	¾	..	New Mexico and Arizona		$1,000,000	$1	....	.....	11⅞	7⅛	9⅜	2¼	7¼	1½
..	..	No sales	..	..	..	North Central Texas	(sh)	400,000	N.P.	....	9- 2-30	14⅛	8½	18½	6⅛	11¼	2⅛
⅛	1/16	800	⅛	1/16	..	Pandem	(sh)	489,875	N.P.	....	.....	6	2⅛	3½	½	2½	¼
⅜	⅜	No sales	..	..	..	Pantapec Oil	(sh)	1,506,000	N.P.	....	.....	15⅝	8½	10½	1⅞	4⅜	⅞
½	⅜	100	⅜	⅜	..	Reiter-Foster	(sh)	388,584	N.P.	....	12- 2-29	12⅞	4⅛	8½	1⅛	5⅜	1
1	1	100	1	1	..	Ryan Consolidated	(sh)	500,000	N.P.	....	.....	12	4⅛	11	2	8⅝	2
⅜	⅛	200	⅜	⅜	..	Salt Creek Consolidated	(sh)	1,286,300	$10	....	4- 1-31	7¼	5½	5⅞	1⅞	2½	½
3⅞	3⅛	100	3⅜	3⅜	..	Salt Creek Producers	(sh)	1,496,859	$10	25c	2- 1-32	35	23⅛	25⅞	9	15¼	5¼
½	⅜	500	⅜	⅜	..	Sunray Oil	(sh)	1,163,185	$5	....	4-15-31	..	..	12	5⅝	10	2
½	1/16	1,800	⅜	1/16	..	Venezuelan Petroleum	(sh)	755,090	$5	....	2-15-30	9⅛	4¾	6½	1¾	4½	⅜
2	1⅛	No sales	..	..	..	Woodley Petroleum		$500,000	$1	....	3-31-29	8¼	4⅞	9½	2	5	½
⅜	¼	900	¼	¼	..	Y Oil & Gas		100.000	N.P.	....	.....	8⅜	2⅛	2⅞	½	2½	⅜

*Ex-dividend. †Unit of trading less than 100 shares. ‡Payable monthly and monthly stock dividend of one-half per cent. §Paid in lieu of regular cash dividend of 2 per cent.

TRANSACTIONS IN OIL SHARES ON NEW YORK STOCK EXCHANGE

Quotations Compiled by Francis, Bro. & Co., Members of the New York Stock Exchange and Associate Members of New York Curb, Kennedy Building, Tulsa, Okla.
(Complete record week ending Jan. 30)

1931 High	1931 Low	Week ended Jan. 30 Sales	Week ended Jan. 30 High	Week ended Jan. 30 Low	Close Feb. 3	Stocks—		Outstanding capital	Par value	Div. rate	Payable or last paid	1928 High	1928 Low	1929 High	1929 Low	1930 High	1930 Low
14	12	900	12⅜	12	..	Amerada Corp.	(sh)	922,075	N.P.	50cQ	1-30-32	43⅞	27⅛	42⅝	17½	31½	16½
3	1¾	2,200	3	2	..	American Republics Corp.	(sh)	209,180	N.P.	....	12-31-30	85	51⅛	64¾	12½	37	5⅛
9¾	8⅛	130	8⅝	8⅛	..	Associated Oil		$57,260,300	$25	....	6-30-31	53⅜	37½	47¼	34½	51	30
10¾	8¾	8,100	10⅛	9	9⅛	Atlantic Refining		$66,763,775	$25	25cQ	12-15-31	66⅜	50	77⅞	30	51⅜	16⅝
5⅞	4	5,800	5	4¼	4½	Barnsdall Corp. A		$56,546,600	$25	....	5-11-31	54	20	49⅛	20	34	8⅝
6⅞	5¾	7,600	6¼	5¾	6	Continental Oil of Delaware	(sh)	4,741,554	N.P.	....	12-15-27	..	..	47⅞	18	30½	7¾
15½	11	1,800	14½	13½	..	General Asphalt	(sh)	413,333	N.P.	50cQ	12-15-31	94⅞	68	94¾	42¼	71½	22⅜
23⅜	16¼	2,850	19⅝	17⅞	18	Houston Oil		$24,968,600	$100	....	10-17-30	167	79	109	26	116⅞	29¼
1⅝	1¼	1,000	1½	1¼	..	Indian Refining		$12,564,070	$10	....	10- 1-30	39⅝	9	53	13⅛	17	2
1¼	1	No sales	..	..	..	Louisiana Oil Refining	(sh)	1,190,063	N.P.	....	.....	19¾	9⅜	18	7	12	3½
⅞	¾	400	¾	¾	..	Maracaibo Oil	(sh)	330,000	N.P.	....	.....	25½	12½	18½	5⅜	10⅜	1⅜
6⅜	5⅜	2,400	6	5½	5½	Mid-Continent Petroleum	(sh)	1,857,912	N.P.	....	2-16-31	44½	25⅛	39⅞	22⅛	32	11
6½	5	11,200	6	5⅛	5⅛	Ohio Oil	(sh)	6,648,052	N.P.	....	3-14-31	84	58½	79⅞	64¼	32	16
..	..	No sales	..	..	..	Pan American P. & T.		$50,084,700	$50	40c	1-20-32	50⅞	38¼	69	40½	46½	42
19	19	No sales	..	..	18	Pan American P. & T. "B"		$121,110,650	$50	40c	1-20-32	59⅞	37⅜	69¼	40½	67¼	30
1¼	½	No sales	..	..	..	Panhandle P. & R.	(sh)	199,370	N.P.	....	.....	21¾	11½	15¼	3	12¾	1⅜
8	5¾	No sales	..	..	6	Panhandle P. & R. pfd.		$2,564,400	$100	....	.....	108	70	76	47½	20	47½
5½	4	2,850	4⅞	4½	4⅝	Phillips Petroleum	(sh)	2,593,075	N.P.	....	1- 2-31	53⅞	35¼	47	24¼	44⅝	11½
½	¼	700	½	⅜	⅜	Pierce Oil Corp.		$29,622,831	$25	....	.....	5¼	½	3⅜	1	2½	½
1⅛	⅝	1,600	1	¾	..	Pierce Petroleum	(sh)	2,500,000	N.P.	....	2-16-31	7	3½	5⅞	½	7⅛	1⅛
7	5	5,100	5¼	5	5	Prairie Oil & Gas		$60,848,000	$25	....	3-31-31	68	46	65⅜	40½	54	11¼
8⅞	6¼	4,525	7¼	6⅞	7	Prairie Pipe Line		$101,250,000	$25	....	6-30-31	280	172	65	45	60	16⅝
1½	1	600	1¼	1⅛	..	Producers & Refiners		$37,438,950	$50	....	9-15-23	29⅞	16	25⅞	4	11⅞	1
8⅛	3½	410	8⅛	7	..	Producers & Refiners pfd.		$2,845,350	$50	....	5- 4-25	49⅝	41	46⅜	25½	40	11½
5⅛	3⅞	2,000	4⅜	4¼	4½	Pure Oil		$75,959,250	$25	....	9- 1-30	31⅝	19	30⅜	20	27¼	7⅝
¾	½	900	¾	⅝	¾	Richfield Oil (new)		$52,410,875	N.P.	....	.....	56	23	49⅝	20	9¾	4⅛
2⅜	2	2,200	2⅛	2⅛	2⅛	Rio Grande Oil	(sh)	1,236,270	N.P.	....	7-25-30	37½	32	42½	15	25⅜	5
16⅝	13⅜	18,100	16½	15¼	18¾	Royal Dutch N. Y.	(sh)	611,303	....	$0.938	8- 4-31	64	44⅝	64	43⅛	56½	36⅞
9	6¾	3,300	7½	6¾	7⅛	Seaboard Oil of Delaware	(sh)	1,244,383	N.P.	....	10- 1-24	72	4⅝	59⅜	8¼	37	9¾
12½	8½	No sales	..	..	..	Shell Transport & Trading Co.		£23,985,000	£1	$0.726	7- 6-31	47⅞	41⅜	51½	40⅝	48⅜	26
3⅞	2¾	5,000	3½	3	3¾	Shell Union Oil	(sh)	13,066,497	N.P.	....	6-30-30	39¼	23¼	31⅜	19	25½	5¼
5⅛	4⅝	600	4⅞	4¼	..	Simms Petroleum		$8,353,620	$20	....	9-15-30	27½	18⅛	40⅛	15	37	5⅝
7⅛	4¼	21,800	5½	5	5¼	Sinclair Consolidated	(sh)	5,500,000	N.P.	....	4-15-31	46¾	17⅜	45	21	32	9¾
80	82	200	83	82	..	Sinclair Consolidated pfd.		$16,025,250	$100	$2Q	2-15-32	110	102½	111	103	112¼	86
4	2¾	1,500	3⅛	2¾	2¾	Skelly Oil		$27,441,250	$25	....	12-15-30	42⅝	25	40½	28	12	10⅛
10⅝	8⅞	27,600	10	9	9¼	Socony-Vacuum	(sh)	31,923,072	$25	25c	3-15-32	..	..	..	..	..	..
27	22¾	16,000	24⅛	22¾	23⅜	Standard of California	(sh)	12,594,098	N.P.	50cQ	3-15-32	80	63	81⅞	51½	75	42½
12⅜	9	2,900	11¾	10	..	Standard of Kansas		$8,000,000	$25	....	3-16-31	37¾	15	33¾	18	49	14⅝
30½	25⅝	94,900	27⅝	25⅝	27⅝	Standard Oil of New Jersey		$634,999,200	$25	25cQ§	3-15-32	59⅝	37⅜	83	49	84⅞	32½
30	27⅜	2,100	28½	27⅜	..	Sun Oil	(sh)	1,416,869	N.P.	25cQ	12-15-31	77	31½	68⅜	55	70	39
⅝	¼	1,100	½	½	..	Superior Oil Corp.	(sh)	766,979	N.P.	....	12-20-30	..	..	24	5¼	9⅜	¾
13⅞	11	16,800	12⅛	11	11⅝	The Texas Corporation		$246,204,900	$25	50cQ	1- 1-32	74¾	50	71⅞	50	60½	28¼
2⅜	2	200	2	2	..	Texas Pacific Coal & Oil Co.		$9,304,890	$10	....	12-31-29	26⅝	12⅛	23⅞	9½	14½	4
..	..	No sales	..	..	..	Tide Water Oil	(sh)	2,191,759	N.P.	....	6-30-31	41½	19⅝	40	14	31	13
35⅞	31⅜	300	35	34	..	Tide Water Oil pfd.	(sh)	19,947,000	N.P.	$1.25Q	2-15-32	100⅛	86	97½	85⅛	94⅞	71
3⅜	2⅜	8,000	3⅛	2¾	..	Tide Water Associated	(sh)	5,560,424	N.P.	....	2-16-31	25	14¾	23½	10	17¾	5⅞
27½	20½	1,000	25	24	20¾	Tide Water Associated pfd.		$73,284,500	....	$1.50Q	1- 2-32	..	..	90⅞	74⅛	89¾	55
13⅞	11	2,500	12¾	11⅝	11¾	Union Oil of California		$104,342,375	$25	35cQ	2-10-32	58	42⅜	57	42⅛	50	10⅛
19¼	15	600	15⅞	15	15½	Union Tank Car	(sh)	1,254,048	$100	40cQ	3- 1-32	128⅛	110	163¾	121⅞	38½	23
1½	1	100	1¼	1¼	..	Warner-Quinlan	(sh)	632,948	N.P.	....	7- 1-30	44⅞	26	42⅞	15	27	4¼
4⅛	3¼	1,200	4	3¾	3¼	Wilcox Oil & Gas	(sh)	428,907	N.P.	....	5-10-28	..	..	29¾	12⅞	21	6½

*Ex-dividend. †Unit of trading less than 100 shares. ‡Plus extra dividend of 25 cents.
In comparing highs and lows for the several years in the three tables, it will be necessary to take into consideration cases where there have been stock split-ups.

TARIFF COMMISSION ISSUES SUPPLEMENT

(Continued from Page 15)

have drawn substantially on crude oil in storage.

Costs of Production of Crude Petroleum

In the limited time available for the preparation of this memorandum it was not possible to obtain costs of production, either foreign or domestic, of crude petroleum in 1931. Since domestic costs of crude varied only slightly from 1927 to 1930, it is reasonable to assume that costs for 1931, with the exception of those for the East Texas Field, were little different from the average costs for the previous four years, namely $1.09 per barrel. With respect to costs in the East Texas Field, the commission points out that the lowest costs shown in the commission's previous report for any major field in Texas was 46 cents per barrel for West Texas in 1929. Since costs in East Texas are generally considered to be extremely low, it appears probable that they are no more than the 46 cents per barrel cost shown for West Texas in 1929, and perhaps substantially lower.

Ocean Transportation Charges

Cost of the ocean movement of some 110,000,000 bbls. of crude petroleum from Gulf Coast ports to domestic ports in the Atlantic Seaboard during 1931 averaged around 19 cents per barrel, as compared with 27 cents in 1930. The rates for chartered vessels (prevailing about 15 cents) appear to be below cost of operation. The commission is advised from reliable sources that at present (January 29, 1932) there are some 85 American tank steamships "in layup," that is to say, idle.

Delivered Costs at Atlantic Seaboard

Reports received by the commission indicate that domestic refineries on the Atlantic Seaboard received not less than 112,750,000 bbls. of crude oil from domestic ports on the Gulf Coast during 1931. Of this total, some 16,165,000 bbls. came from fields in East Texas; the remainder (some 96,585,000 bbls.) from other fields in the Mid-Continent-Gulf area.

The principal new factor in the costs of Mid-Continent-Gulf crude in 1931 is the lower cost of the product of the East Texas Field. The costs in the Mid-Continent-Gulf fields as a whole had declined gradually from 1927 to 1930 but on account of the restriction of output in 1931 it is quite possible, and perhaps probable, that the costs of production, except in the East Texas Field, were somewhat higher in 1931 than in 1930.

For the purpose of estimating approximately the average cost of production and transportation to the Atlantic Seaboard of Mid-Continent-Gulf crude during 1931, it may be assumed that (except for East Texas crude) the costs for 1931 f.o.b. ocean tankers averaged the same as for the four-year period, 1927-1930, except in respect to pipe line costs which (except for East Texas) were probably more nearly similar to such charges for 1930 (45.56 cents) than with the four-year average. Thus the four-year average cost f.o.b. ocean tankers was $1.64 per barrel from which the four-year average pipe line cost of 49.26 cents is deducted and the cost for 1930 (45.56 cents) added, making the average cost of $1.60 per barrel for 96,585,000 bbls. which came from Mid-Continent-Gulf fields other than those in East Texas.

The average cost of the ocean tanker movement in 1931 was 19 cents per barrel, making the total delivered cost at the Atlantic Seaboard $1.79 ($1.60 plus 19 cents). The maximum possible cost of that part of the supply which came from fields in East Texas (16,165,000 bbls.) may be taken as 46 cents for production, plus 30 cents for pipe line transportation plus 19 cents for ocean tanker transportation, plus 6 cents for miscellaneous charges—a total of $1.01 per barrel.

On the basis of those assumptions, and of the relative quantities supplied during 1931 from the East Texas fields as compared with the other fields of the Mid-Continent-Gulf area, the average delivered cost for all Mid-Continent-Gulf crude received by Atlantic Coast refineries in 1931 may be estimated as follows:

	No. of bbls.	Delivered cost—Per bbl.	Total
E. Texas crude	16,165,000	$1.01	$16,327,000
Crude from other Mid-Continent-Gulf fields	96,585,000	1.79	172,887,000
	112,750,000	$1.68	$189,214,000

As thus calculated the average delivered cost in 1931 was approximately $1.68.

As already stated, the cost for the East Texas crude taken at 46 cents may exceed considerably the actual cost of production in that field. For each 10 cents per barrel which costs of production of crude in East Texas were less than the cost of 46 cents used in the above calculation, the delivered cost of the total movement of crude from Gulf ports to the Atlantic Coast in 1931 would be decreased by about 1.2 cents per barrel. If, for example, costs in East Texas were as low as 25 cents per barrel, the delivered cost of East Texas crude would be approximately 80 cents per barrel, and the average cost of all the crude moved from Gulf ports to Atlantic Seaboard in 1931 would be approximately $1.65 per barrel.

If the delivered cost of $1.68 per barrel (the delivered cost of the total movement calculated on the basis of 46 cents for cost of production of East Texas crude) is adjusted for quality, it appears that the delivered cost in 1931 of that part of a barrel of the domestic crude needed to produce the same value as produced from a barrel of foreign crude would be approximately $1.18, as compared with a four-year average cost in 1927-1930 of about 87 cents per barrel for Venezuelan crude and of approximately $1.15 per barrel for the crude from all foreign countries. For each decrease of 10 cents in the well cost of 46 cents for East Texas crude, the cost of that part of a barrel of domestic crude needed to produce the same value as a barrel of foreign crude would be reduced by about .8 to .9 cent per barrel. These adjustments are based on prices obtaining for petroleum products in 1930. Limitation of time precludes calculating adjustments based upon 1931 prices.

The commission has no information as to foreign costs in 1931, except the lower total production. If ocean tanker costs have fallen as much for the imported oil as for domestic, namely, by about 7½ cents per barrel, and if it be assumed that the other costs in 1931 were the same as for 1927-1930, total delivered cost would be about 79½ cents per barrel for Venezuelan crude, and $1.07 for all foreign crude.

OIL MEN OPPOSED TO GASOLINE TAX INCREASE

(Continued from Page 15)

ation in excess of reasonable requirements for highway construction and maintenance and will be present at the hearing to protest against the diversion of such taxation to purposes other than such construction and maintenance.

"Comparing the amount of money which would be raised through motor vehicle taxation as proposed by the Mapes committee (as illustrated by the gasoline tax bill pending before Senator Capper's committee), with the actual needs of the District of Columbia for highway construction, replacement and maintenance," the American Automobile Association contends, "it is evident that the Mapes plan would raise from the motorists alone not only the entire cost of operation of the highway department, its construction program and operation of the office of the director of vehicles and traffic, and therefore lay the burden of the entire highway program solely on the shoulders of the motorists of the District of Columbia, but would in addition raise an excess of $1,307,855.62, which surplus would be diverted to the general fund for purposes other than street and highway construction."

"Any plan which proposes such diversion cannot be condemned too severely," the Automobile Association declares.

The association submits statistics to show the total tax levied and paid by District of Columbia motorists in one form or another amounts to $2,519,397.81, made up as follows:

Two-cent gasoline tax levy	$1,762,397.81
Personal property tax on automobiles, including $1 registration fee	600,000.00
Annual income from operators' permits	157,000.00
Total	$2,519,397.81

Michigan Oil Men's View

The Michigan Oil Men's Association, with headquarters in Jackson, Mich., has sent a strong protest against the increase of the gasoline tax in the District of Columbia from 2 to 4 cents a gallon. H. H. Ragle, president, personally addressed this statement of the experiences of the Michigan oil men with gasoline taxation to Senator Capper, chairman of the committee:

"Constituents of this organization," says Mr. Ragle, "were fairly reconciled to the imposition of a 2-cent gasoline tax, providing all moneys received therefrom were honestly expended on the construction and maintenance of an economically conceived highway system.

"We viewed with some great apprehension, however, the raising of the impost to 3 cents which became effective September 4, 1927, believing that a further increase would have a decided tendency to encourage:

"1. A temptation to build new roads at a more rapid rate than justifiable from the standpoint of sound business economics.

"2. A very pronounced invitation on the part of racketeers and unscrupulous operators to take advantage of higher than the 2-cent tax to evade the payment of taxes in whole or in part, which in turn would set up a very bad competitive condition against a legitimate marketing structure.

"3. A growing tide of resentment on the part of the motoring public toward gasoline taxation in general, with a subsequent lessening ratio of new motor car registrations and a proportionately diminished consumption of gasoline.

"4. A well grounded fear that a possible surplus of moneys as would eventually be the result of an increased tax would lead to a diversion of gasoline tax money for other purposes, thereby further imposing an unfair burden on a particular class of people.

"5. A strong temptation to practice fraud in claiming exemptions arising from the alleged use of gasoline for other than the propulsion of motor vehicles on the public highway.

"While the Michigan state gasoline tax is but 3 cents our anxiety has subsequently been found justified.

"For example, in the year 1925, 5.79 per cent of the gross tax collected was returned in refund claims.

"In 1926 refunds amounted to 6.29 per cent.

"For the year 1928 (first full year of the operation of the 3-cent tax) refund claim allowances increased to 9.23 per cent.

"For the year 1929 refunds amounted to 9.55 per cent; for 1930, 8.87 per cent.

"For the year 1931 it will figure approximately somewhat over 9 per cent, or an increase of almost 50 per cent in the amount of money claimed by purchasers in ratio to the gross amount of tax collected.

Encourages Evasion

"With our 2-cent tax we do not believe there was any great evasion, since the lawbreaker's possible profit was hardly enough to justify the risk of the law's penalties, but since the advent of the 3-cent tax the state treasury and the honest taxpayer have suffered the loss of revenue because of the machinations of unscrupulous operators, running into many hundreds of thousands of dollars, from what might be termed racketeering evaders alone, to say nothing of the hundreds of thousands of dollars the State has really been mulcted out of because of the fraudulent refund claims.

"The honest distributor of gasoline who has scrupulously remitted to the State the full amount of taxes has been almost

IMPORTS OF PETROLEUM AND ITS PRODUCTS, 1929, 1930 AND 1931

Product	Barrels of 42 gallons 1929	1930	1931*	Value 1929	1930	1931*
Crude petroleum:						
Netherland West Indies	16,222,480	9,780,217	4,102,876	$12,165,392	$7,442,274	$3,159,107
Venezuela	34,431,388	25,299,349	21,121,744	32,609,091	24,519,138	15,633,220
Subtotal†	50,653,868	35,079,566	25,224,620	$44,774,483	$31,961,412	$18,792,327
Mexico	12,663,419	10,093,333	8,207,073	$11,387,816	$8,231,681	$6,061,752
Colombia	12,620,000	14,204,000	12,329,017	18,490,220	19,859,745	12,509,009
Peru	1,454,346	1,281,010	224,541	3,233,035	2,877,770	490,927
All other countries	1,540,939	1,471,510	1,264,404	2,057,875	1,941,513	1,366,605
Total crude petroleum	78,932,572	62,129,419	47,249,655	$79,943,429	$64,872,121	$39,220,620
Advanced and refined oils:						
Topped oils (incl. fuel oils) (total)	20,545,493	26,080,383	24,998,016	$16,512,893	$18,875,484	$16,215,281
Netherland West Indies	18,217,358	23,933,196	23,322,107	$14,139,702	$17,124,843	$15,103,701
Mexico	1,653,665	1,619,651	1,310,025	1,591,395	1,103,490	672,244
All other countries	574,475	527,536	365,884	781,795	647,151	439,336
Gasoline, naphtha and other finished light products (total)	8,834,302	16,926,800	13,621,355	$43,335,242	$58,604,080	$35,069,009
Netherland West Indies	7,494,107	15,472,685	12,130,837	$37,370,390	$52,668,867	$31,859,607
Trinidad and Tobago	1,012,027	1,216,070	1,213,417	4,353,066	4,429,285	1,963,868
All other countries	328,168	238,045	277,101	1,611,786	1,505,928	1,245,534
Tops and other refined distillates (total)	5,203	148,993	39,987	22,173	194,135	231,926
Illuminating oil (kerosene) (total)	208,008	200,086	11,477	561,644	649,256	89,048
Lubricating oils‡ (total)	39,354	24,728	31,600	591,407	415,614	564,035
Total advanced and refined oils	29,632,365	43,380,990	38,702,435	$61,023,359	$78,738,569	$52,149,299
Paraffin and paraffin wax§	40,859,824	30,289,505	37,835,435	$2,591,258	$1,505,524	$1,371,455
Mineral wax§	9,791,090	12,474,894	8,910,346	616,617	722,426	428,808
Candles§	1,391,717	722,162	(‖)	317,710	161,581	(‖)
Asphalt and bitumen¶	108,053	47,498	65,779	955,606	457,172	726,216
Total value	.....	.....	.....	$145,447,979	$146,457,393	$93,396,395

Source: Bureau of Foreign and Domestic Commerce.
*Preliminary figures. †Shown as subtotal because crude imported from Netherland West Indies is produced in Venezuela. ‡Includes paraffin oil. §Quantity in pounds. ¶Quantity in long tons. ‖Data not yet available.

hopelessly at a disadvantage in competing with the successful law evaders. This is particularly true in the larger cities and towns of the State.

"Unscrupulous and unchecked tax evasion on the part of fly-by-night operators has been most largely responsible for chaotic marketing conditions and a proportionately lower overall market structure than would otherwise have been justifiable, even during the many months of economic stress which business in general has been passing through.

"This organization, representative of an industry operating within the State with gross sales of approximately $175,000,000 per annum, paying several million dollars in taxes to the support of the state and local governments, giving employment to tens of thousands of people, therefore views with alarm any possible tendency to further increase the tax, and it shall be our pleasure, should activities be developed in that direction, to resist the effort by means of every lawful procedure available.

"We therefore view with great alarm the recent passage of a bill in the House of Representatives to increase the tax in the District of Columbia from 2 cents to 4 cents.

"We believe it would be most unfortunate for one of the country's foremost industries in size and importance to have the federal Government give official countenance to so high a tax in the seat of our government, for that in itself would without question be considered as a model by each of the respective states now having a tax of less than 4 cents.

Bad Example

"Furthermore, we believe, were the District of Columbia to have such a tax, it would give further inspiration to those numerous states now having a tax of 4 cents or above.

"Statistics conclusively prove that the majority of states where a 4-cent tax or greater impost is in effect have had a decided dropping off of motor vehicle registrations as compared with years previous.

"The present 2-cent tax in the District of Columbia is equivalent to approximately 17 per cent net service station sales price without tax but including cost of production, refining, transportation and distribution. No other essential commodity in such general usage bears anything like a 17 per cent tax.

"Should the tax be increased to 4 cents as now proposed by Congress a percentage of 33.6 would be almost confiscatory and we frankly believe that in the end it would not produce much if any more revenue.

"The opportunity for wholesale tax evasion would increase many fold. Commuters from Maryland and Virginia would no doubt purchase their requirements in their home states.

"A 3-cent tax in the State of Michigan is equivalent to 23 per cent of the net sales volume to the public including the cost of production, refining, transportation and distribution. A 3-cent tax even at present is equivalent to approximately 100 per cent of the sales value of the product, f.o.b. refinery. Of course, this ratio is at present abnormally high because of the abnormally low returns to the refiner. However, a year ago a 3-cent tax was equivalent to approximately 67 per cent of the net sales price, f.o.b. refinery.

"No other great American industry has ever suffered in recent decades such an imposition.

"We respectfully beseech you therefore to give this all important subject your earnest consideration and to permit an exhaustive hearing through the personal appearance of representative members of the industry to discuss this matter frankly with the committee of the whole."

Mr. Byles' Statement

"Experience has proven that a high rate of tax defeats its own purpose by making evasion so profitable as to become inevitable and uncontrollable," says Axtell J. Byles, president of the Tide Water Associated Oil Co., in a letter to Senator Capper.

"At a hearing I have no doubt evidence will be introduced to conclusively prove that the raising of taxes in several of the states has resulted in a decreased revenue," Mr. Byles states.

"Such a situation not alone defrauds the state and demoralizes the marketing division of the oil industry, but also defrauds the consumer by adding to the price of his gasoline a tax which never reaches the public treasury, and in more cases than not results in his getting an inferior and adulterated product which is costly to him in the maintenance of his motor.

"Experience has indicated that there is not sufficient margin of profit under a 2-cent tax to encourage law violation to any great extent. This may be true as to a 3-cent tax but certainly in lesser measure.

"It occurs to me that an important consideration in this problem is the moral element. I am more concerned about racketeering in this country than I am about its economic condition, serious as we all recognize that to be at present. Any law which not only encourages racketeering but as a practical matter makes it inevitable strikes at the heart of the Nation.

"The states and the oil industry itself have but recently awakened to the seriousness of this aspect of the gasoline tax situation. I have been shocked at the disclosures of corruption which have recently been made. In many cases they are almost beyond belief and yet they are facts.

"Rightly or wrongly, both the oil and motor industries have already felt that it is equitable that the proceeds of a gasoline tax should be devoted exclusively to the construction and maintenance of roads and streets and that only in the direst emergency should such taxes go into the general funds."

Mr. Carter's Protest

The Shell Eastern Petroleum Products, Inc., with offices in New York and many service stations in the District of Columbia, voices its sentiments against the gasoline tax increase in a letter by its president.

"The experience of this and other oil companies," says Mr. Carter, "has proved quite conclusively that, while a gasoline tax of not more than 2 cents per gallon does not offer enough possible profit to encourage inscrupulous persons to evade the tax, any increase over 2 cents is inevitably followed by organized tax evasion and gasoline bootlegging, which frequently becomes so widespread as to result in smaller total tax collections with the higher than with the lower tax rate.

"Tax evasion and gasoline bootlegging disrupt price structures and force honest dealers to suffer, in the aggregate, huge losses of revenue. This in turn deprives the government of income from taxes which such dealers would otherwise pay.

"If the federal Government increases the tax in the District of Columbia to 4 cents it will, in effect, proclaim its belief that that amount is a fair tax which can be successfully collected. This will serve as an incentive to those states with a tax of less than 4 cents to increase their tax to at least that figure and will give a further impetus to tax evasion and bootlegging with subsequent loss to the oil industry and the Government.

"I earnestly trust that you will decide to oppose the passage of the bill."

N.P.A. Voices Objections

The National Petroleum Association, through its president, E. M. Lyon, strongly condemns the proposed gasoline tax.

"Gasoline is a common necessity and as such should not be taxed by the states to the extent of $500,000,000 a year," declares Mr. Lyon in his letter to Senator Capper.

"The United States Bureau of Public Roads reports that for the year 1930 the states of the Union and the District of Columbia collected $494,683,410 on 14,751,308,978 gallons of gasoline.

"In addition to the tax on gasoline the states and the District of Columbia receive funds from registration fees, operators' permits, dealers' licenses and miscellaneous items, which for the year 1930 totaled $355,704,000, making a grand total for gasoline tax, license fees, etc., of $850,388,270.

"The owners of vehicles in which gasoline is used for fuel are paying at the rate of $850,000,000 per year in the form of taxes for the privilege of using the highways."

Mr. Lyon explains that the National Petroleum Association is composed of nearly all of the oil refining companies with refining plants east of the Mississippi River, and many of them serve the District of Columbia with petroleum products.

No Increase Warranted

"This association is opposed to any and all increases in gasoline taxes," Mr. Lyon declares.

"Recently the governor of Pennsylvania recommended that the tax on gasoline be increased from 3 to 5 cents a gallon. The proposed increase was opposed by motorists, truck and bus owners, the entire oil industry (including oil producers, refiners and distributors), the farming interests and by the public generally.

"The proposed bill was amended to provide for a 1-cent per gallon increase in the tax and the amended bill was defeated in the House of Representatives by a vote of 191 to 7.

"I understand that the present 2 cents per gallon tax on gasoline used in the District of Columbia is providing all of the revenue necessary to improve and maintain the streets in the District, and in addition to that has provided a cash surplus. It is assumed, therefore, that an increase in the tax rate on gasoline in the district is not needed for street improvement and maintenance.

"The oil industry is not opposed to a reasonable tax on gasoline, when the revenues are used exclusively for improvements and maintenance of highways, but it is opposed to unreasonable taxes and the diversion of such taxes.

"Gasoline is a common necessity, and as such should not be taxed, but it is being taxed by the states to the extent of $500,000,000 a year.

"A tax of more than 2 cents per gallon on gasoline provides a temptation to irresponsible dealers to evade the tax and to add such tax to their own profits. The higher the tax the greater the evasion. This has been proven in a great many states in the Union.

"In addition to the National Petroleum Association being opposed, the American Petroleum Institute, which embraces all phases of the petroleum industry in this country, has taken a decided stand in the matter of gasoline taxes. I quote in part from a resolution adopted by the board of directors of the institute on November 12, 1931."

This resolution recited that the original purpose of the gasoline tax had been accomplished to such an extent that such a tax was no longer necessary or justifiable for highway construction or maintenance, etc., and with this resolution Mr. Lyon said the National Petroleum Association concurs.

Kentucky Wires

A telegram has been received by Senator Capper from Herbert L. Clay, secretary of the Kentucky Petroleum Marketers Association, Louisville, Ky., saying:

"Our organization, which includes the majority of the oil industry of Kentucky, feels that it would be unwise to increase the gasoline tax in the District of Columbia and we therefore respectfully suggest that your committee will see fit to report unfavorably on the House bill that is before you for consideration."

Senator Capper has written to Mr. Clay saying it is essential that he keep

CALIFORNIA CRUDE OIL PRICES

(Continued from Page 85)

ASSOCIATED OIL CO. PRICES

Associated Oil Co. prices effective June 20 are as follows:

Ventura Avenue, 22 gravity, 58 cents, with 2 cents added for each degree upward to and including 30 gravity, which is 74 cents.

Kettleman Hills—The Associated Oil Co., effective at 7 a.m. February 5, 1932, withdrew and canceled any and all prices heretofore published and in effect for Kettleman Hills oil.

Potrero, 24 gravity, 69 cents, with 2 cents added for each degree upward to 34 gravity which is 69 cents.

General Petroleum Co. in Kettleman Hills, effective January 1, 1932: 33-33.9 degrees, 66 cents; 34-34.9 degrees, 68 cents; 35-35.9 degrees, 70 cents; 36-36.9 degrees, 72 cents; 37-37.9 degrees, 74 cents; 38-38.9 degrees, 76 cents; 39-39.9 degrees 78 cents.

UNION OIL CO. OF CALIFORNIA

Crude Oil Prices for Its Purchases at the Well for Crude Produced in Strict Accordance With the Production Allocations Made by the California Statewide Curtailment Committee Effective 7 a.m., June 20, 1931

(All gravities above these quoted take highest price for that field)

Gravity °A.P.I.		Signal Hill	Alamitos Heights Seal Beach	Huntington Beach	Athens, Rosecrans, Domingues	Torrance	Santa Fe Springs	Playa Del Rey* E. Coyote,	Richfield	Montebello	Santa Paula	Orcutt	Coalinga	Lost Hills	McKittrick, Kern River, Sunset-Midway, Elk Hills, Buena Vista Hills	Gravity °A.P.I.
11-12.9	.....	....	....	....	....	....	....	....	....	....	....	....	....	....	$.50	11-12.9
14-14.9	.....	$.65	$.65	$.65	....	$.65	....	....	$.65	$.65	$.65	$.55	$.55	$.55	.55	14-14.9
15-15.9	.....	.65	.65	.65	....	.65	....	....	.65	.65	.65	.55	.55	.55	.55	15-15.9
16-16.9	.....	.65	.65	.65	....	.65	....	....	.65	.65	.65	.55	.55	.55	.55	16-16.9
17-17.9	.....	.65	.65	.65	....	.65	....	....	.65	.65	.65	.55	.55	.55	.55	17-17.9
18-18.9	.....	.65	.65	.65	....	.65	....	....	.65	.65	.65	.55	.55	.55	.55	18-18.9
19-19.9	.....	.65	.65	.65	....	.65	....	$.65	.65	.65	.65	.55	.55	.55	.55	19-19.9
20-20.9	.....	.65	.65	.65	....	.65	....	.65	.65	.65	.65	.56	.56	.56	.55	20-20.9
21-21.9	.....	.65	.65	.65	....	.65	....	.66	.66	.65	.65	.57	.55	.57	.55	21-21.9
22-22.9	.....	.65	.65	.65	....	.66	....	.67	.67	.65	.65	.59	.55	.59	.56	22-22.9
23-23.9	.....	.67	.67	.67	....	.67	....	.68	.68	.65	.65	.61	.55	.60	.58	23-23.9
24-24.9	.....	.69	.69	.69	$.69	.68	$.65	.69	.69	.65	.66	.63	.55	.62	.61	24-24.9
25-25.9	.....	.71	.71	.71	.71	.70	.65	.70	.70	.65	.68	.65	.57	.64	.64	25-25.9
26-26.9	.....	.73	.73	.73	.73	....	.65	....	.72	....	.70	.67	....	.66	.66	26-26.9
27-27.9	.....	.75	.75	.75	.75	....	.68	....	.74	....	.72	....	....	.67	.68	27-27.9
28-28.9	.....	.77	....	....	.77	....	.71	....	....	....	.74	....	....	.69	.71	28-28.9
29-29.9	.....	.79	....	....	.79	....	.73	....	....	....	.76	....	....	.71	.74	29-29.9
30-30.9	.....	.81	....	....	.81	....	.75	....	....	....	.78	....	....	.72	.76	30-30.9
31-31.9	.....	....	....	....	.83	....	.78	....	....	....	....	....	....	....	....	31-31.9
32-32.9	.....	....	....	....	.85	....	.80	....	....	....	....	....	....	....	....	32-32.9
33-33.9	.....	....	....	....	.87	....	.83	....	....	....	....	....	....	....	....	33-33.9
34-34.9	.....	....	....	....	.89	....	.85	....	....	....	....	....	....	....	....	34-34.9

*Subject to a gathering charge of 5 cents per barrel.

an open mind on all matters of legislation before the committee.

"I appreciate the importance of the oil industry to the welfare of our section of the country," states the senator and he invited Mr. Clay to appear either in person or by a representative before the District committee when the gasoline tax increase hearing takes place.

Oklahoma Also Opposes

J. R. Atchison, manager of the Oklahoma Petroleum Marketers Association, writing from Oklahoma City, Okla., says:

"I wish to urge you as earnestly as I can on behalf of the oil marketing industry to oppose this measure.

"Exorbitant gasoline tax rates have created one of the major criminal activities of the country today. We in Oklahoma have had bitter experiences with it. Other states have suffered perhaps more than has Oklahoma. Your own State, Kansas, is feeling the effect of illegal selling of gasoline by evading the tax where the rate is less than it is in Oklahoma. You are doubtless informed as to that condition.

"The oil industry is struggling for its very existence and it is manifestly unjust that an industry which is so vital to the welfare of the Nation should be thus subjected to special taxation to a point where criminal competition threatens its very life.

"The federal Government should not sanction by levying a 4-cent tax on motor fuel in the District of Columbia the unwarranted and destructive program of taxation on motor fuel in which several states have gone to such excess. The oil industry is looking to you and others who know the evils of the excessive gasoline taxes to do everything possible to defeat this measure in the Senate."

Atlantic Refining Protests

Tax evasion is the theme of the letter Senator Capper received from the Atlantic Refining Co. R. D. Leonard, vice president of the company, writing from Philadelphia, states that the only reason his company knows for increasing the gasoline tax in the District of Columbia from 2 to 4 cents is to, in some measure, equalize the tax in the District with the tax now prevailing in the State of Virginia, namely 5 cents, and in the State of Maryland, namely 4 cents.

"The general experience of the petroleum industry in the states where there is a tax on gasoline above 2 cents a gallon is that there is actually in existence the very vicious practice of tax evasion," says Mr. Leonard.

"This means," he continues, "the dishonest distributors collect the tax from the consumer and fail to make honest returns to the state for the tax collected. In states where the tax has been raised to 4 and 5 cents a gallon, the amount of tax evasion has become notorious and extremely vicious. In the State of Oklahoma for example, where the tax was raised from 3 to 5 cents a gallon, the actual experience of the State has been that it is receiving less return with the 5-cent tax than it did on the previous rate of 3 cents.

"In the State of Pennsylvania the tax was raised by cents from 2 to 4 cents; the 4-cent rate immediately tended toward causing tax evasion. The rate was subsequently reduced to 3 cents, but the practice of tax evasion by dishonest distributors had become so widespread that it became obvious and notorious.

Vicious Practices

"Over the past year of 1931, the oil industry, in co-operation with the Department of Revenue, conducted investigation of tax evasion and demonstrated definitely that the State, through the vicious practice of tax evasion by dishonest distributors, was losing in revenue several millions of dollars per annum. In the city of Philadelphia alone the loss to the State in one year was conservatively estimated at $800,000. The investigation resulted in true bills of indictments being found on good legal evidence against 700 distributors and retailers, some of whom are surcharged by the State with fraudulent returns and the amounts in individual cases ranged from $60,000 to $100,000. These cases are a matter of public record.

"This form of tax evasion by dishonest distributors set up a form of competition that was also impossible for honest refiners and distributors to compete with.

"The procedure of the tax evader is very simple. He collects the tax, whether it be 3 or 4 cents a gallon, and in order to secure business will use the tax money collected as a medium of cutting the price and withholds the tax money from the state as a medium of profit in conducting his business.

"The above lengthy recital of facts and experiences is for purpose of pointing out that while any gasoline tax rate established for the District of Columbia has little significance in itself, and will probably bring about little if any tax evasion, it is of outstanding importance, countrywide, as evidencing the approval by the federal Government of high gasoline rates everywhere. We respectfully submit that any form of legislation establishing a tax rate that is a deliberate inducement to dishonesty should not, even inferentially, have the endorsement of the United States Government. We therefore urge that in the interest of nationwide business honesty and in fairness to the petroleum industry your committee report against the increase in gasoline tax rate from 2 cents to 4 cents for the District of Columbia."

Protest from Empire

The Empire Companies, Bartlesville, Okla., through its general counsel, Judge James W. Finley, gave Senator Capper an example of the way high gasoline taxes reduce revenue from that source.

"I trust that your committee will not see fit to approve this bill, for I believe too much of the burden of government is being placed upon the oil industry, and in view of its present distress it ought not to be further burdened. It is true that the argument is made that the oil industry does not pay this tax, but that the consumer pays it. But indirectly it burdens the industry because with the increase in price there results a decrease in consumption that the oil industry directly bears. From my experience, I believe that the maximum tax on gasoline should not exceed 3 cents. When the tax goes higher than that it becomes burdensome and therefore invites bootlegging of gasoline.

"Oklahoma has a 4-cent gasoline tax, but the legislature of the State increased the tax to 5 cents for the year 1931, afterward dropping back again to 4 cents, but the extra 1 cent had a most disastrous effect. I have not the figures for the entire period, but I do know that during one month of the year 1931 the total tax collected by the State was only 60 per cent of the tax collected for the corresponding month of 1930.

"When it is recalled that the price of manufactured gasoline at the refineries has ranged during the past year from 2 to 4 cents per gallon, it seems to me unjust to put a tax upon the product that is as great as the value of the product at the refineries.

"I understand that under the present 2-cent tax the District of Columbia collects approximately $2,000,000 annually from this source. You will find, I am confident, that if the tax is increased to 4 cents that the quantity of the tax collected will be far less than the proportion that might be expected, namely $4,000,000, due to two factors: a lesser consumption and more or less bootlegging."

OIL ELECTION IN CALIFORNIA

SACRAMENTO, Calif., Feb. 8.—Governor James Rolph called a special election for the presidential primary day, May 3, to vote on two measures passed by the last legislature and held up by referendum. One is the Sharkey Oil Conservation Act and the other relates to the duties of the state director of finance in leasing tidelands for oil drilling.

JAMES A. CAMPBELL RESIGNS

James A. Campbell has resigned as chairman and director of the Youngstown Sheet & Tube Co. due to ill health. He is 77 years old. Henry G. Dalton, first vice president, succeeds Mr. Campbell as chairman. Mr. Campbell was made chairman emeritus.

SMALL INCREASE FOR FEBRUARY REFINERY RUNS

(Continued from Page 13)

REFINERY OPERATIONS IN KANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
Altitude Petroleum Corp., Chanute	5,000	500	800
Barnsdall Refineries, Inc., Wichita	4,000	2,500	2,500
Derby Oil Co., Wichita	7,500	3,500	4,000
Eldorado Refining Co., Eldorado	4,500	2,500	2,000
Golden Rule Refining Co., Wichita	1,500	700	750
Kanotex Refining Co., Arkansas City	12,000	8,700	8,500
National Refining Co., Coffeyville	6,500	5,000	5,000
Phillips Petroleum Co., Kansas City	7,500	6,000	7,000
Shell Petroleum Corp., Arkansas City	22,000	18,000	18,000
Sinclair Refining Co., Coffeyville	12,000	8,000	8,000
Sinclair Refining Co., Argentine	9,500	(*)	(*)
Skelly Oil Co., Eldorado	23,000	10,800	9,300
Standard Oil Co. of Kansas, Neodesha	20,000	6,000	6,000
Vickers Petroleum Co., Potwin	3,500	1,700	2,000
White Eagle Oil Corp., Augusta	15,000	15,000	11,000
Total	153,500	83,900	79,850

*Shut down.

REFINERY OPERATIONS IN NORTH CENTRAL TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
All State Refining Co., Thrall	3,000	(*)	800
American Refining Properties, Wichita Falls	6,000	(*)	(*)
Apache Refining Co., Sunray	4,000	(*)	800
Archer Refining Co., Megargel	1,500	150	200
Atlantic, Pacific & Gulf Refining Co., Wichita Falls	5,000	(*)	(*)
Carson, M. D., Brady	200	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	2,500	2,500
Dale Oil & Refining Co., Electra	4,000	(*)	(*)
Deer Oil Corp., Brownwood	2,000	(*)	(*)
Dixon Creek Oil & Refining Co., Kings Mill	3,500	1,000	2,250
Echotex Refining Co., Echo	300	100	100
Empire Oil & Refining Co., Gainesville	5,000	3,000	3,000
Falls Refining Co., Wichita Falls	2,000	(*)	500
Gulf Refining Co., Fort Worth	10,000	6,000	6,000
Humble Oil & Refining Co., Breckenridge	2,000	(*)	(*)
Humble Oil & Refining Co., Chilton	4,000	750	1,100
Humble Oil & Refining Co., Boggy Creek	5,000	3,050	2,500
Iowa Park Producing & Refining Co., Iowa Park	2,500	(*)	(*)
Kent Refining Co., Minerva	2,000	(*)	(*)
Kent Refining Co., Angus	4,000	(*)	(*)
LaSalle Petroleum Co., Burkburnett (Noble)	3,500	(*)	(*)
Macmillan Petroleum Co., Isom	8,000	(*)	(*)
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	4,300	4,200
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	4,000	3,400
Magnolia Petroleum Co., Corsicana	5,000	4,500	4,300
Marathon Oil Co., Fort Worth	5,000	3,000	3,900
Muenster Refining Co., Muenster	300	(*)	(*)
Norgold Refining Co., Olney	200	50	(*)
Obar Refining Co., Coleman	300	(*)	(*)
Olney Oil & Refining Co., Olney	2,500	1,500	(*)
Oriental Oil Co., Dallas	5,000	1,500	1,000
Panhandle Refining Co., Wichita Falls	5,000	2,350	2,000
Petroleum Refractionating Co., Pampa	6,500	(*)	6,400
Phillips Petroleum Co., Isom	18,000	16,000	16,000
Primrose Refining Co., Wichita Falls	2,500	2,000	2,000
Sinclair Refining Co., Fort Worth	5,000	2,500	2,500
Simms Oil Co., West Dallas	4,500	3,000	(*)
Southland Refining Co., Olney	1,000	(*)	(*)
Seymour Refining Co., Seymour	250	(*)	(*)
Star Refining & Producing Co., Fort Worth	1,500	1,000	750
Superior Refining Co., Tiffin	2,000	(*)	(*)
Taylor Refining Co., Taylor	6,000	1,200	1,000
Taxman Refining Co., Wichita Falls	2,500	(*)	(*)
The Texas Company, Dallas	16,000	14,000	12,000
The Texas Company, Amarillo	4,000	2,700	3,000
Tidal Western Refining Co., Burkburnett	3,000	(*)	(*)
Texas Pacific Coal & Oil Co., Fort Worth	3,000	1,800	1,800
Texas Pacific Coal & Oil Co., Caddo	1,000	600	600
Waggoner Refining Co., Electra	3,400	2,000	1,500
Wilcox Oil & Gas Co. (Pampa Refining Co.), Pampa	4,000	2,000	(*)
Young Refining Co., Archer City	250	(*)	(*)
Total	204,700	85,550	86,100

*Shut down.

REFINERY OPERATIONS IN NORTH LOUISIANA
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
Bayou State Refining Co., Hosston	750	250	(*)
Louisiana Oil Refining Co., Shreveport, Bossier	19,000	17,100	17,700
Spartan Refining Co., Shreveport	10,000	6,000	6,000
Stanolind Oil & Gas Co., Superior	3,500	3,000	3,000
The Texas Company, Shreveport	7,000	(*)	(*)
Total	40,250	26,350	26,700

*Shut down.

REFINERY OPERATIONS IN WEST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
Bluebonnet Oil Refining Co., Wickett	5,000	(*)	(*)
Burford Oil Co., Pecos City	6,000	(*)	(*)
Coitex Refining Co., Colorado	10,000	6,400	6,000
Concho Refining Co., San Angelo	300	100	100
Cosden Oil Co., Big Spring	15,000	4,500	5,000
Deer Oil Corp., Luling	2,500	(*)	(*)
Ewmo Oil Corp., Hawley	1,000	100	100
Grayburg Oil Co., San Antonio	6,000	650	650
Great West Refining Co., Big Spring	8,500	(*)	(*)
Gulf Refining Co., Sweetwater	5,000	3,000	4,000
Howard County Refining Co.	2,500	(*)	(*)
Humble Oil & Refining Co., San Antonio	5,000	1,250	700
Humble Oil & Refining Co., McCamey	15,000	1,000	(*)
Magnolia Petroleum Co., Luling	5,000	5,100	5,000
Marathon Oil Co., Del Rio	5,000	(*)	(*)
Miskc Refineries, Inc., Laredo	1,500	800	750
Motor Fuel Products Co., Laredo	2,000	(*)	(*)
Panotex Petroleum Co., El Paso	14,000	4,300	5,500
Pioneer Oil & Refining Co., Somerset	1,500	830	750
Richardson Refining Co., Big Spring	6,000	(*)	(*)
Rio Grande Oil Co., El Paso	5,000	700	(*)
San Angelo Refining Co., San Angelo	2,000	150	150
Signal Refining Co., Texon	500	(*)	300
The Texas Company, San Antonio	3,000	2,500	2,500
The Texas Company, El Paso	2,000	1,100	1,000
Tonkawa Petroleum Co., Pyote	5,000	(*)	(*)
Texas Mexican Oil & Refining Co., Laredo	600	400	400
Texas Petroleum Products Co., Somerset	1,500	500	650
Wickett Refining Co., Wickett	2,500	550	629
Total	139,900	33,930	34,179

*Shut down.

REFINERY OPERATIONS IN ARKANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
James H. Berry & Sons, Waterloo	2,000	1,000	1,000
Henry H. Cross Co., Smackover	6,000	4,000	4,000
Houston Oil Co., Camden	6,000	(*)	(*)
Kettle Creek Refining Co., Pearson	5,000	1,800	2,000
Lion Oil & Refining Co., El Dorado	12,000	4,000	6,000
Macmillan Petroleum Products Co., Norphlet	2,000	2,000	1,650
Ouachita Valley Refining Co., El Dorado	2,000	1,400	1,400
Root Refining Co., El Dorado†	10,000	2,700	2,500
Simms Oil Co., Smackover	3,000	2,500	2,500
Union Asphalt Co., El Dorado‡	.....	.....	.....
Total	48,000	19,400	21,050

*Shut down. †Root refinery shut down first 15 days of December due to fire. ‡Reduces residuum purchased from Lion Oil & Refining Co., no crude run.

REFINERY OPERATIONS IN EAST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Runs Feb. 1	Runs Jan. 1
Arrow Refining Co., Overton	2,500	(*)	(*)
Beacon Oil & Refining Co., Henderson	2,500	1,000	400
Boone Refining Co., Arp	500	400	375
Central Refining Co., Friars Switch	10,000	(*)	(*)
Citizens Refining Co., Gladewater	800	(*)	(*)
Constantin Refining Co., Overton	3,000	(*)	(*)
Diamond Refining Co., Overton	3,000	500	200
East Texas Refining Co., Friars Switch	6,000	4,000	4,000
East Texas Refining Co., Longview	10,000	3,400	4,000
Gladetex Refining Co., Gladewater	500	350	200
Gladewater Refining Co., Gladewater	1,000	250	250
W. B. Mackey Co., Gladewater	500	450	300
Kilgore Refining Co., Kilgore	1,500	800	700
Overton Refining Co., Overton	3,500	1,000	950
Petroleum Refractionating Co., Longview	10,000	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	1,000	1,000
Southern Oil & Refining Co., Kilgore	2,500	400	500
Slack Petroleum Co., Willow Springs	2,000	(*)	(*)
Taylor Refining Co., Tyler	15,000	2,000	2,000
Total	79,800	15,550	14,875

*Shut down.

ARGUMENTS PRESENTED AGAINST OIL TARIFF

(Continued from Page 14)

up the question of the effect of the drawback provisions of the proposed tariff act, as affecting the proposed income from crude oil. There is no question but that all crude imported, would receive the drawback, since we export, Atlantic-bound, vastly more gasoline and fuel oil, its derivatives, than we import in crude.

"As a revenue measure, the proposal will be futile.

"5. The Tariff Commission report does not show a difference of $1.03 per barrel between the cost of foreign and domestic oils as stated by Mr. Franklin. It actually shows, if crude only is taken into consideration without giving value to derivatives of crude or comparative cost of the derivatives from the crude, a difference of .6467 cent per barrel. As is actually the case, figures can be interpreted with a semblance of truth and in this instance Mr. Franklin has taken the average cost of all domestic crude oil and compared it with the cost of only one foreign produced oil instead of taking the average of all foreign crude oil as he did in the case of American produced oil. We might as easily make a comparison with the average cost of all foreign produced oil with the lowest cost of domestic produced oil. By actually taking the average cost stated by the Tariff Commission you arrive at the difference of .6467 cent per barrel. I gave here a statement which is taken from the Tariff Commission's figures which shows that the actual difference as shown by their report is only .06 cents per barrel in favor of foreign produced oil.

Pipe Line Cost

"This figure is arrived at by taking the market value of the derivatives of each of the two crudes deducting therefrom the cost of the crude oil and cost of refining. But the commission states in its report that these figures are not fair to foreign producers on account of the fact that they were not able to determine the actual cost of pipe line transportation and that it was necessary for them to take the published pipe line tariffs in the United States. That on the other hand, in determining the cost of transportation for foreign produced crude they were able to secure the actual bare cost of transportation, which were applied.

"The pipe line companies for the year 1930, and as a matter of fact in every year of operation, report material earnings and again we go to the Interstate Commerce Commission's report on operations for the year 1930 for all pipe line companies in the United States as published in July, 1931. They show that from the total revenues received by the pipe line companies only 60 per cent of these revenues represented costs and that these costs include depreciation and 6 per cent interest on investment, leaving it reasonable to assume that they must have shown a 40 per cent profit. It would be easy, therefore, to determine this .06 per cent per barrel represented the difference in cost between domestic as against foreign produced oil which is offset three times by the 18-cent per barrel profit which was made on a 45-cent pipe line rate included in the cost of American crude for 1930.

"If imported crude oils from Venezuela or anywhere else are more profitable to the refiner on the Atlantic Coast, they would be bought and processed in those refineries in preference to domestic oils. They are not. Except for refineries operated by the importing companies themselves, not a single Atlantic refinery uses the foreign oils for production of refined oils other than asphalt and its by-products. There is no advantage today in cost of production and transport of imported oils, and there was none in 1930, on the face of the Tariff Commission's as yet unpublished complete report.

Reduction in Imports

"Mr. Franklin continually reverted to the efforts of domestic producers to curtail their production to within temperate limits, and attributed the present unsatisfactory condition of the oil industry to the 'flood of imports.' Permit me to say that the opposite is the case. Imports began from our and other American companies' holdings in Mexico and Venezuela long before the present prolific and overdrilled American fields were known.

"In the 11 years, 1921 to 1931, American production has increased 80 per cent. Imports have fallen 33 per cent and more.

"Imports have been curtailed, by American companies producing and importing oils, 19 per cent in 1931 from 1930. Domestic production has fallon only 5 per cent.

"On April 9, 1931, at the invitation of the Oil Conservation Board, a meeting was held in Washington, at which government officials sought the co-operation of domestic producers and American importers in curtailing their operations. An agreement was arrived at. Since April 30, 1931, imports have fallen over 13 per cent, and domestic production has increased 5 per cent.

"Let us look into the last three months for which figures are available. These show as compared with the same months of 1930:

"In October domestic production rose 0.26 per cent; imports decreased 9.21 per cent.

"In November domestic production rose 7.20 per cent; imports decreased 15 per cent.

"In December domestic production rose 9.43 per cent; imports decreased 10.2 per cent.

"The domestic producers represented by Mr. Franklin have curtailed a bit, but the importers have curtailed in high degree. And Mr. Franklin is not satisfied with the sincere co-operation of his American brethren in foreign fields, which has been vastly more effective than his own, and now wants to bar the whole of the imports by a discriminatory tax against them. We voice our objection.

"A tariff or tax in any amount on imports alone would not equalize conditions but would make them more unfair than ever to the importers; would destroy this American industry; would throw more American laborers out of employment than are now idle in the industry and would return no income.

American Enterprise

"In addition, to penalize this section of the American oil industry would be a breach of faith to the companies who, with encouragement of the United States Government, have undertaken the responsibility of expanding this American industry in foreign countries.

"Last year, Ray Lyman Wilbur, Secretary of the Interior, sent to Senator Johnson, the chairman of the Committee on Commerce of the United States Senate, a letter from O. P. Hood, assistant director of the Bureau of Mines, addressed to Robert P. Lamont, Secretary of Commerce, in which, among other things, Mr. Hood said:

" 'Foreign crude which is being imported into the United States is predominantly the output of American-owned and operated companies. In its third report the Federal Oil Conservation Board stated that "the present imports of Mexican and South American crude oil come largely from American operators and, while not obtained from United States oil sands, they are the product of American engineering and enterprise."

" '* * * these American companies consistently received the assistance of the United States Government in their efforts to explore and develop oil lands in foreign countries. * * * Discussing foreign oil sources in its first report, the Federal Oil Conservation Board advised "that our companies should vigorously acquire and explore such fields is of importance, not only as a source of future supply, but supply under control of our own citizens."

" 'Having thus encouraged American oil companies to develop foreign oil production, in order that other nations would not control an undue share of the world's oil resources, it might be considered that there has been established an implied obligation to continue in the assistance of American companies engaged in foreign oil production and that the restriction or refusal of admission to the United States of the oil so produced would be contrary to the encouragement which these companies have received while engaged in foreign oil exploration and development work.'

"This, Mr. Chairman, is a statement by a government official who had reason to study the obligations of the United States Government to American companies engaged in the production and importation of foreign produced American oil.

Effect on Asphalt

"For my part, representing the American company importing the greatest amount of petroleum products, I assure you that, except for small shipments of heavy oil for asphalt manufacture, we could not and would not import a single barrel of oil if this measure should be adopted. The price of asphalt under this tax would, of necessity, be increased by $8.40 a ton, as it takes 10 bbls. of crude oil to manufacture 1 ton of asphalt. The revenue from this source would be negligible, and all road building programs would necessarily be curtailed by the resulting increased cost of asphalt of nearly 100 per cent.

"On the other hand, no revenue whatever would be forthcoming from the importation of crude for gasoline manufacture or from fuel oil or from gasoline."

Mr. Sanders: "You believe in a protective tariff?"

Mr. Stewart: "To a certain extent."

Mr. Sanders: "You believe in it and you do not believe in it for the third largest industry of the United States"

Mr. Stewart: "Even if this oil is produced in a foreign country, it is produced by an American company."

Mr. Sanders: "How would you raise the revenue we must have?"

Mr. Stewart: "I would raise it by a sales tax."

Questioned about the way prices of oil are determined, the witness denied the charge that pipe lines set prices, saying:

"The independents set the prices because it is they who are willing to name a lower price. Obviously that brings the price down."

Manufacturing Phase

Thomas S. Cooke of New York, general manager of manufacturing for the Pan American Petroleum & Transport Co., briefly undertook to combat the idea that "a barrel of oil is a barrel of oil."

"No less authority than Walter C. Teagle, president of the Standard Oil Co., New Jersey, has been quoted as saying you can get as much gasoline from a barrel of low-grade oil or fuel oil as from a barrel of high-grade oil," declared Mr. Cooke.

"If Mr. Teagle made that statement," he continued, "he did it in reference to the far distant future of the oil industry. There are processes by which we may get 100 per cent from a barrel of oil but it is so far in the future no one here will ever see that result."

These foreign producers, he said, had produced from their crude 73 per cent fuel oil which they would not have done if they could have produced as much gasoline. From a different crude he had produced 65 per cent gasoline. That was domestic petroleum.

"Here is the Mexican oil," he illustrated, "and here is the Mid-Continent oil. They look alike, but their similarity ends there. Here is shown 65.25 per cent of gasoline from domestic oil and here is 74 per cent asphalt from a barrel of Mexican oil."

Illustrating, he showed the committee a sample containing 69 per cent of fuel from Venezuelan crude, and referring to Venezuelan crude and its usefulness for producing fuel oil, he added:

"That is the best they can do with it now."

Steamship Owners Protest

H. B. Walker, New York City, president of the American Steamship Owners Association, then explained to the committee that he represented 70 per cent of the shipowners of the country. This shipping industry, he said, is an infant industry and without fuel oil obtained at present prices the industry could not continue. It now gets fuel oil available through imports to the extent of 50 per cent of their needs.

New England Objects

Benjamin A. Franklin, of the Associated Industries of Massachusetts, said his association represents some 1,200 manufacturers of Massachusetts employing about 400,000 workers. He appeared for his own company as well as for the Associated Industries and the Writing Paper Association. "This bill would cost New England some $17,000,000 and would cost its manufacturers some $11,000,000. It would cost my company some $40,000," he declared.

Taxi Owners Oppose

H. A. Innes-Brown, New York, represented the National Association of Taxicab Owners in opposition to any import duty on petroleum.

"There are operating throughout the United States 140,000 taxicabs," he said. "These cabs use an average of 15 gallons of gasoline a day, or 2,100,000 gallons for the whole industry a day. An increase of from 4 to 6 cents a gallon would thus mean a cost of over $80,000

a day or, if the larger amount is used, $120,000 a day.

"Calculated over a period of a year, it will be found that the taxicab industry consumes 766,500,000 gallons of gasoline and that the increase in cost would amount to from $28,000,000 to $42,000,000."

Truck Owners Against

The Motor Truck Association of American was represented by Theodore D. Pratt, its general manager.

"Using the 1930 registration records," he said, "we find that there were 3,480,939 motor trucks registered in the United States. These trucks used 5,238,745,656 gallons of gasoline. If the proposals before this committee are enacted into law, and the cost of gasoline is increased to the consumer by 4 cents a gallon, as we believe it will be, it means that the operators of motor trucks will pay an increased tax of $209,549,826.

"On heavy trucks used to deliver coal, milk, wholesale groceries, etc., and all such necessities of life the additional cost will equal at least $1 a day."

Oil Burner Men Fear

The American Oil Burner Association also was in opposition to an import duty on petroleum. Harry A. Tapp represented the association, which, he said, consists of over 100 oil burner manufacturers and approximately 10,000 oil burner dealers.

"Last year," he said, "approximately 350,000,000 bbls. of oil fuel were consumed in this country and more than 50,000,000 bbls. were used for the heating of homes and commercial buildings. The imposition of a tariff and/or tax on imported petroleum and petroleum products as proposed will undoubtedly raise the price of fuel oil to such an extent that it will be practically impossible to sell oil-burning equipment.

"Today there are over 750,000 home owners in this country using oil fuel who alone have invested more than $525,000,000 in oil-burning equipment. An increase of 2 cents per gallon would add over $30,000,000 to their fuel bill."

Want Cheap Paving

Mark Cooper, representing the Cooper Corp. of Saulsbury, Md., appeared in the interest of cheap asphalt streets and roads throughout the eastern seaboard states.

Philip R. Allen of Boston, Mass., declared that 90 per cent of the asphalt used on the Atlantic Seaboard for roofing and roads comes from foreign crude.

Effect on Gas Rates

J. B. Klumpp of Philadelphia, Pa., representing Washington, D. C., gas companies, told the committee of the dependence of the manufactured gas business on oil and said as rates are regulated any increase in the price of gas oil would result in an increase.

George M. Rommel, industrial commissioner of Savannah, Ga., said he believed he represented the sentiment of Georgia, South Carolina and Florida in opposition to additional taxes, no matter what they be called, on petroleum and its products.

Farmers Heard From

George Knoblauch of Dutchess County, New York, representing the Farmers Grange of that section of New York, said the farmers objected to a tariff on oil because of its effect on the operating cost of farms and the building of rural roads. The operation of the farm is largely by the use of gasoline driven machinery.

Rene Clerc, representing the New Orleans Chamber of Commerce, said that "as a result of the imposition of this tax refineries in the New Orleans district will either be closed down or forced to curtail operations because it must be obvious that the foreign crude now being run to them will seek new markets."

William G. Powell of the Lawrence, Mass., Industrial Bureau said "the proposed excise taxes or duties are discriminatory in that they effect only the people and industries in the states bordering on the Atlantic Ocean. New England is affected more than any other section along that coast because it is the only one of the great industrial areas that is not served by pipe lines from the Mid-Continent Field."

Representatives Nelson of Maine, Edith Nourse Rogers of Massachusetts and Herbert J. Drane of Florida presented arguments against any import duty on petroleum.

Frank S. Davis, of Boston, Mass., representing the Maritime Association of the Boston Chamber of Commerce, was sure the tax on fuel oil would not produce revenue for the Government while it would destroy the ability of the shipowners to continue the use of fuel oil.

Mr. Davis favored a sales tax on foreign gasoline sold in service stations along highways the Government had assisted in constructing. He did not know how the foreign gasoline could be spotted to allow the tax to rest upon that alone but he thought a method to accomplish that could be worked out.

A.P.I. for General Sales Tax

After submitting statements opposing the plan for piling a Federal gasoline tax on top of the heavy state gasoline taxes now prevailing, representatives of the American Petroleum Institute, responding to the appeal of Acting Chairman Crisp for suggestions of ways to obtain revenue at this time of financial emergency, gave their approval to the levying of a tax of 1 per cent on all manufactures. These had been reported to be approximately $60,000,000,000, so that a 1 per cent tax would raise $600,000,000 for the Federal Government, easily collected and involving as little burden to industry as could be obtained in any other way. This tax would be collected by the Government directly from the manufacturer.

There was a distinguished assemblage of oil men when representatives of the American Petroleum Institute addressed the committee. The following had come in response to the committee's invitation: R. C. Holmes, president, The Texas Company; C. B. Ames, executive vice president, The Texas Company; E. G. Seubert, president, Standard Oil Co. of Indiana; Frank R. Coates, member executive committee, Henry L. Doherty & Co.; James A. Moffett, Jr., vice president, Standard Oil Co. (New Jersey); W. T. Holliday, president, Standard Oil Co. of Ohio; W. M. Irish, president, Atlantic Refining Co.; H. V. Wilkinson, vice president, Standard Oil Co. of New York; W. S. S. Rogers, vice president, The Texas Company; H. T. Klein, general counsel, The Texas Company; R. L. Leonard, vice president, Atlantic Refining Co.; L. Stevens, general counsel, Standard Oil Co. of Indiana; R. G. Stewart, president, Pan American Petroleum & Transport Co.; Frank Seamans, Barber Asphalt Co.; J. Howard Pew, president, Sun Oil Co.; William Allen, The Texas Company; W. R. Boyd, Jr., executive vice president, American Petroleum Institute; and Fayette B. Dow, National Petroleum Association.

Pew Proposes Sales Levy

J. Howard Pew, president of the Sun Oil Co., in response to questions by the committee, suggested the manufacturers' tax of 1 per cent, this tax applying to all classes of manufactures, along the same lines as apply to the Canadian sales tax.

"Practically everywhere," said Mr. Pew, "the present-day problem of public finance is to find relief from the excesses of the general property tax. That tax, once as nearly fair as any tax could be, has become in our time the cause of much injustice and inequity. Students of public finance are all seeking ways to broaden the basis on which must rest the load of public charges.

"At the outset, then, of my protest against a Federal tax on gasoline, I want to point out that such a tax would be a long step toward repeating the very mistake that has been made throughout the long period in which the general property tax has come to be the chief burden-bearer in the structure of public finance. Because real property could not be hidden, the tax on it could not be dodged. It was easy to assess, easy to collect. For a very similar reason the tax on gasoline has become a favorite method of revenue production: It is easy to collect. But, just the ease of piling more and more of the tax load on the general property levy has wrought disastrous consequences, so the tendency to squeeze constantly more and more revenue out of the gasoline tax threatens similar disaster.

"From the beginning, there has been a tacit understanding between the Federal Government and the states that this source of revenue should be left to the states. The states have organized their road building programs in full faith that they might rely upon this revenue. Some of them, indeed, either over-confident or over-necessitous, have already made their gasoline taxes so high as to pass the point of maximum productiveness. Evasion has developed on a scale of big business, with disastrous results to both the revenues of states and the stability of the affected industries; it has suddenly grown to the proportions of possibly the greatest 'racket' in American business.

"This country is now in the midst of depression, and many people believe that the automotive industry may be expected first to recover and to lead in general economic improvement. What, then, could at this time more effectively discourage the motorist and the motor industry than for the Federal Government to start taxing gasoline?"

Boyd Approves

When W. R. Boyd, Jr., executive vice president of the American Petroleum Institute, also gave approval to the suggestion for a manufacturers' sales tax. The committee developed a keen interest in statements showing a decrease in sales of gasoline when gasoline taxation was unusually high.

"The six essentials of life are food, fuel, clothing, shelter, communication and transportation," began Mr. Boyd. "Any undue burden on transportation reacts proportionately upon each of these other essentials. The excessive taxation of any commodity in general use lays a heavy hand on every social and economic unit. It is antisocial and undemocratic. It is inexcusable socially, economically and politically.

"The motor car owner is already the willing horse that has been tax-ridden to the point of exhaustion and two great industries, namely, automotive and petroleum, as well as numerous other industries allied with or dependent upon them, inevitably will be gravely crippled if there be no relief."

Mr. Boyd thought it was not proper for the Government to attempt to tax any particular industry; the tax should cover all forms of industry.

"It is obvious," he said, "that somebody must bear the tax and it ought to be distributed as widely as possible."

Judge C. B. Ames, of The Texas Company, told the committee that if it was going to impose a tax it should not select only one industry already heavily taxed, and he too approved a manufacturing tax to cover everything produced in the country. The American Petroleum Institute would be willing to have its industry share in the burden of such a tax.

Costs at Aruba

R. C. Osterstrom of the Pure Oil Co. submitted a letter written by Dr. W. W. Holland, who was formerly stationed at the Pan American refinery at Aruba, in which costs of refining at Aruba were analyzed. Speaking of the relative value of domestic and Venezuela oil, Mr. Holland said: "The quality of Venezuela gasoline compares favorably with the domestic product made by similar operations. Its antiknock value is higher than the average grade of gasoline made in this country and it is therefore less expensive to bring it up to the desired octane number. Its sulphur content is slightly under 0.1 per cent.

"Gasoline is valued at 8.29 cents and fuel oil at 2.93 cents per gallon. One barrel of Venezuela crude yields approximately 30 per cent of gasoline, 12.6 gallons, and 70 per cent of fuel oil, 29.4 gallons. The value of these products is therefore, gasoline 1.0445 and fuel oil .8614, total gross value 1.9059. The difference in the refining costs would then make it appear that 83 cents might be more correct than 75 cents as the tariff on a barrel of crude."

UTILITIES NOT SUBJECT TO PRICE FLUCTUATION

(Continued from Page 28)

ing utilities in Alabama were enacted in 1920, there have been practically no increases in utility rates, but on the other hand, many decreases.

This result could not have been accomplished if, during the period of high prices, it had not been the commission's policy to take for rate bases as low figures as could be justified under the law. The law of the land requires that consideration and weight must be given to reproduction cost as an element of the rate base. The costs of labor and material necessarily affect this element of value.

While it is true that prices of labor and materials have undergone considerable reduction during the last two years, because of the fact that the commission has declined to give controlling weight to reproudction cost while the prices were high, conservative rate bases have been used. This policy has resulted in lower utility rates during a period when prices generally were rising.

Another thing which people generally overlook is that during this depression the utilities generally have lost much business, like private industries, and consequently their revenues have fallen off similarly to private business. While operating expenses of the utilities have been somewhat reduced under changed economic conditions, they are required to keep always sufficient force to maintain adequate service.

It must be remembered that the ordinary commercial enterprise turns its capital over several times each year. The utilities turn their capital over once in 4 to 10 years. Thus fixed charges, taxes, depreciation and interest, being determined by the amount of the capital or investment required to conduct the business, are very high for utilities, as compared with the usual commercial and industrial establishments. These fixed charges make up from 50 to 70 per cent of the cost of furnishing utility service. They cannot be reduced during periods of smaller output and sales of utility service. In fact, taxes continue to increase every year.

The remaining costs of utility service, comprising 30 to 50 per cent of the total, do not afford the opportunity for the same proportion of reduction of total operating cost resulting from decrease in commodity prices as applied in cases of most private enterprises.

Due to the very large proportion of cost represented by fixed charges and due to the nature of the other operating expenses, the utilities' total operating expenses have been affected to a lesser degree by declining prices of materials and labor than most other industrial enterprises.

There is another important difference between utilities and private business. In hard times like the present, the private business ceases to borrow money, immediately curtails expenses by cutting down production or by refusing to buy, unless the price is satisfactory, and, if necessary, closes up shop and awaits more prosperous times.

The public utility, because of its obligation to continue to serve and to render adequate service, is greatly limited as to the extent to which it can go in making any such economies. It cannot discontinue its service without legislative consent, and such consent can with difficulty be obtained.

The record shows that there has been no increase in rates and charges for gas since 1913, on account of the rising and increased cost of materials, labor, wages, coal and general operating expenses, or for other reasons, but on the contrary during the entire period when such items named have been increasing in cost there has been in fact a continuous reduction in the cost of gas to the consumer.

The allegations of the complaint have not been sustained, and the complaint is, therefore, dismissed.

DECREASE IN VALUE OF REFINERY EXPORTS

(Continued from Page 81)

615 bbls. valued at $34,419,515 in the 12 months of 1930.

Imports Declined

Gasoline, naphtha and other finished light products imported declined from 963,924 bbls. valued at $3,077,847 in December, 1930, to 792,925 bbls. valued at $1,410,526 in December, 1931.

In the 12 months' period gasoline imports decreased from 16,926,800 bbls. valued at $58,604,080 in 1930 to 13,621,355 bbls. valued at $35,069,009 in 1931. Nearly all of this gasoline came from the Netherland West Indies, only 1,213,417 bbls. coming from Trinidad and Tobago in the 12 months of 1931 and none from any other source. This was a slight decline from the importation in 1930 when the quantity from Trinidad and Tobago was 1,216,070 bbls. However, the recorded value of the gasoline imported from Trinidad and Tobago in the 12 months of 1930 was $4,429,285, while for practically the same quantity imported in the 12 months of 1931, the value fell to less than half, or $1,963,868.

It will be seen that the percentage of the decline in exports of gasoline was considerably less than the percentage of the decline in the volume of imports.

Kerosene Exports

Exports of kerosene in December, 1930, totaled 1,310,191 bbls. valued at $4,956,537, decreasing more than one-half in December, 1931, or to 640,217 bbls. valued at $1,724,127.

For the 12 months of 1930 exports of kerosene totaled 16,689,684 bbls. valued at $63,325,252, declining to 12,534,130 bbls. valued at $34,795,880 in the 12 months of 1931.

Gas Oil and Fuel Oil

Gas oil and fuel oil exported in December, 1930, totaled 2,687,817 bbls. valued at $2,575,812, decreasing to 1,710,635 bbls. valued at $1,379,396 in December, 1931.

In the 12 months of 1930 the gas oil and fuel oil exported totaled 32,377,758 bbls. valued at $33,219,574, declining in quantity and price in 1931 to 26,588,187 bbls. valued at $23,966,094.

Lubricating Oils

Lubricating oil exported in December, 1930, totaled 608,006 bbls. valued at $5,286,865, decreasing to 589,014 bbls. valued at $4,275,998 in 1931. In the 12 months of 1930 exports of lubricating oil totaled 9,752,076 bbls. valued at $88,931,071, decreasing to 7,994,446 bbls. valued at $62,986,230 in 1931. Exports of red and pale oil decreased from 414,672 bbls. in December, 1930, to 344,351 bbls. in December, 1931, while exports of both black and cylinder oils increased, the former from 47,744 bbls. in December, 1930, to 49,074 bbls. in December, 1931, and the latter from 145,590 bbls. in December, 1930, to 195,589 bbls. in December, 1931.

However, in the cases of both black and cylinder oils there was a decrease in the 12 months' periods. Exports of black oil decreased from 987,741 bbls. in the 12 months of 1930 to 635,299 bbls. in 1931. Cylinder oil exports decreased from 2,874,752 bbls. in 1930 to 2,489,121 bbls. in the 12 months' period of 1931.

Paraffin Wax

Paraffin wax exported and imported in December, 1931 showed a marked increase in quantity and a fair maintenance of value quite out of keeping with the many other decreases in quantity and value all along the line of petroleum and its products, although the 12 months' periods showed a slight decline in paraffin wax exports.

Paraffin wax exported in December, 1930, totaled 27,620,086 pounds valued at $851,680, increasing to 38,659,169 pounds valued at $1,040,832 in December, 1931.

In the 12 months' period of 1930 paraffin wax exports totaled 292,932,142 pounds valued at $10,479,727, declining slightly to 290,484,394 pounds valued at $8,424,987 in the same period of 1931.

Paraffin and paraffin wax imported in December, 1930, totaled 3,167,721 pounds valued at $149,659, increasing to 3,728,173 pounds valued at $212,396 in December, 1931. In the 12 months' period of 1930 imports of paraffin wax totaled 30,401,505 pounds valued at $1,505,524, increasing in value to 37,835,435 pounds valued at $1,371,455.

DANIEL WELLER DIES ON VISIT TO BROTHER

Daniel Weller of Baton Rouge, La., who retired as president of the Standard Oil Co. of Louisiana on January 1 was found dead in his brother's home in New Rochelle, N. Y. on Saturday, February 6. He had been in ill health for some time.

D. R. Weller

Mr. Weller was a native of Oil City, Pa., and had been with the Standard Oil Co. interests for many years. Previous to going to Baton Rouge he had made his home in Cleveland, Ohio. He was 60 years of age.

DEATH OF F. M. JOHNSTON

Frank M. Johnston, age 79, died at his home in Bradford, Pa., on Friday, February 6. He was one of the largest individual oil operators in the Bradford Field.

Mr. Johnston was born in Westfield, N. Y. After graduating from a business school in Buffalo, N. Y., in 1868 he became a telegraph operator and after several years employment as such, he was attracted to the Pennsylvania oil fields where he began operating in a small way in the Venango district. He was married to Miss Josephine Kerr in St. Petersburg, Pa., in 1881 and moved to the Bradford Field then at the height of its first boom. He devoted most of his time to his business in that field up to the end.

Mr. Johnston was one of the first to see the possible big benefits of the water flood in the Bradford Field and for years he accumulated old producing leases until he had become one of the largest lease owners in the big producing area. Most of the properties were producing a small fraction of a barrel per well, and some of them had ceased to produce. The later application of the artificial water drive to these properties yielded large production and Mr. Johnson became known as a multimillionaire.

DEATH OF F. PARK GEYER

FORT WORTH, Tex., Feb. 8.—F. Park Geyer, 41, former executive of the Marland company, died in a Fort Worth hospital Sunday morning. Immediate cause of death was given as pneumonia, but he had been in bad health for two years. In 1926 Mr. Geyer was made president of the Marland Oil Co. of Texas, which he left about four years ago to engage in business in the Permian Basin, first living at San Angelo and returning to Fort Worth last year.

GEOLOGISTS DISCUSS EAST TEXAS FIELDS

DALLAS, Tex., Feb. 6.—The Dallas Petroleum Geologists were hosts to the East Texas geologists and petroleum engineers and several geologists and engineers from other parts of Texas, Oklahoma and Louisiana, at the Baker Hotel last night. R. B. Whitehead, chief geologist for the Atlantic Oil Producing Co., Dallas, acting as chairman of the meeting, introduced E. V. Foran, former technical advisor of the Railroad Commission of Texas, but now a consulting engineer of Fort Worth, as chief speaker on the program.

The meeting was in the nature of a forum with the discussion general and no prepared papers presented. Attempt was made to develop data as to changes that have taken place in the reservoir pressures in the East Texas Field during its life and Mr. Foran opened the discussion.

There was also discussion as to the probable thickness of the oil sands in the East Texas Pool and the data submitted varied from 20 to 40 feet with no consensus of opinion.

Water migration, source of oil and the reason for some gas areas now being opened in the southern part of the Joiner Pool were discussed without definite opinions being given.

Relationship of bottom and casinghead pressures was discussed, as well as change in water table since the field was first opened, but no evidence to substantiate any of the theories offered was introduced and the discussion was very general.

EAST TEXAS OPERATORS LISTED

R. B. Latting, formerly assistant proration umpire in charge of the Kilgore district in East Texas and later conservation agent of the Texas Railroad Commission, has introduced a new service for companies and others interested in East Texas. It is called "Etex Oil Field Statistics" and consists of a complete list of all operators in the East Texas fields, totaling 655 operators as of January 15, with their field and home office addresses. To those subscribing to the list through Mr. Latting at his office in Henderson, Tex., monthly supplemental lists are supplied at a small cost.

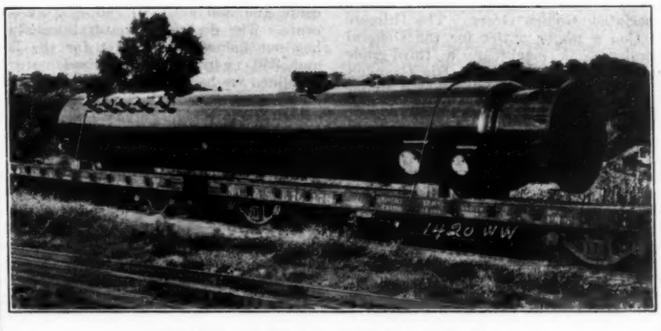
EASTERN ASSOCIATION ELECTS NEW DIRECTORS

BRADFORD, Pa., Feb. 6.—The following board of directors was elected at the annual meeting of the Bradford District Pennsylvania Oil Producers Association: F. D. Dorn, R. T. Zook, E. C. Emery, D. T. Andrus, H. J. Walter, H. G. Barcroft, T. P. Thompson, Jr., A. E. Booth, Tom Mallory, George Bovaird, Jr., Cornell Pfohl, Jr., Lynn Smith, C. E. Streeter, G. B. Wood, R. M. Haskell, T. B. Wilson, Hugh Grant, D. W. Daly, G. A. Simpson, Adolph Schorman, Frank Lawrence, J. W. Looker, W. B. Miller, Robert Digel, Blaine Walker, E. H. Bryner, H. H. Redfield, W. N. Davis, John Messer, Roy Oakes, D. B. Tanner, C. L. Wann, R. C. Lloyd, W. F. Grow and L. G. Dana.

The association took an active part in the defeat of the proposed legislation that would have hampered oil operators in their development work; assisted materially in defeating the proposed additional 2-cent state gasoline tax and in obtaining a reduction of state and county tax on oil properties in the Bradford Field. A. E. Booth guided the affairs of the association as its president last year and J. Scott Walker was active as its secretary. The directors will name the new board of officers.

JOHN E. WARD DEAD

John E. Ward, age 56 years, died recently at his home in Bradford, Pa. Mr. Ward was born in Parkers Landing, Pa., and his parents moved to the Bradford Field, settling in Duke Center, where John Ward grew to manhood. Deceased owned valuable holdings in the Duke Center district and was an active and progressive operator.



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Variety of Names For Third Grade On Western Coast

LOS ANGELES, Calif., Feb. 6.—At the close of this week major companies in California had all adopted a third-grade gasoline, and, while distribution facilities had not yet been completed at the close of the period in question, the additional third pumps and necessary storage facilities were being installed in service stations as quickly as possible. Distribution of the third structure gasoline has been limited to southern California up to the present time but may be extended up along the coast north of Santa Barbara and up through the San Joaquin Valley north of Bakersfield if necessity demands.

Introduction of the third gasoline in the San Francisco Bay region has been held in abeyance in order to give service station operators and independent refiners ample time to stabilize retail quotations. Unless prices in the San Francisco Bay region show a strengthening within the next 15 days, major companies will introduce their third-grade gasoline into that area. Price cutting broke out in that district early last month and major companies have been unable to meet this cut-rate practice with the first-grade gasoline without wrecking the entire price structure.

Preliminary reports covering the situation in southern California indicate that the third structure gasoline of major companies has attracted approximately 15 per cent of cut-rate business previously held by smaller refiners. It appears quite probable that a further displacement will occur as soon as major companies have completed the installation of necessary facilities and secured complete coverage. Distribution of the third-grade gasoline is not yet general throughout southern California but the additional facilities necessary should all be in within the next two weeks.

The Union Oil Co. is marketing a third-grade gasoline under the trade name Unoco. Standard is marketing Flight gasoline; Shell, Green Streak; General Petroleum, Moto-gas; Richfield, Flash gasoline; Texaco, Cal-Pet Green-lite, and Associated, Golden Green. The Gilmore Oil Co., a major outlet for the General Petroleum, is marketing a third-grade gasoline called Bang. The Rio Grande's third-grade gasoline is designated under the trade name Premier, while the Signal Oil & Gas Co. is putting out a third structure gasoline called Peerless gasoline. Retail quotations during the past week showed a slight softening. The third structure gasoline is retailing in southern California at approximately 10½ cents per gallon including the regular gasoline tax of 3 cents per gallon.

NATURAL GASOLINES LOWER IN OKLAHOMA

(Continued from Page 12)

you consider it from the angle of the refiner or the distributor.

Too Many Facilities

Various remedies have been suggested for conditions but so far no company has been willing to take the lead in testing out its particular plan. Fundamentally according to the executive head of one large refining organization, the trouble in retail markets which now dominates the tank car market is due to the unwarranted expansion of bulk station and service station facilities throughout the Southwest and Middle West over the past five years and he does not expect any permanent improvement until this situation is changed.

"Those that dance must pay the piper," is the summarization of another executive who agrees with the opinion just quoted that the duplication of distributing facilities by large and small companies seeking outlets for their refineries, is largely responsible for marketing conditions. To justify the operation of these multiple facilities, it has been necessary to allow wider and wider margins to cover distribution costs which in effect have meant lower returns at the refineries. These spreads became so large that starting in 1930, cut-rate jobbers operating one or two stations, by eliminating the needless operating costs and building up a large volume of business per station, have been able to take a substantial part of the business of the larger distributors. The only permanent remedy according to these executives is a realignment of distributing operations so that costs of the larger distributors are comparable to those of the smaller cut-rate operators. It is said that the recent 2-cent cut in retail gasoline prices in Ohio by the major distributors was a recognition of an intolerable condition, the only remedy for which was a blanket reduction in consumer prices. If this line of reasoning is correct, it obviously means that distributing facilities with low gallonage will have to be abandoned and operations centered in those stations with which a large volume of business is obtainable. The sale of tires, automobile accessories and other products used by car owners is also being tried out by several companies as the solution to the problem of reducing distributing costs on gasoline with the view of making possible better tank car prices at refineries.

Gasoline and Naphtha

The U. S. Motor gasoline of no octane rating was being sold to the trade by refiners at 2¾ to 3¼ cents the first of the week. Brokers who apparently feel that prices will go lower were reported to be offering the same grade to the trade over the month at a low of 2½ cents. Sales of 57-65 octane gasoline were being made at 3¼ to 3¾ cents. Several refiners reported inquiries for this grade and also the 65 and above octane grade, the latter selling at a low of 3½ cents with sales reported as high as 4 cents. As previously explained the actual spot movement of these high octane gasolines is small for the reason that most refiners do not have material in excess of their own station and contract requirements.

In the higher gravity gasolines, the situation is similar to that existing in U. S. Motor gasolines. The ordinary grades are moving slowly with no export business. The 400 endpoint has been sold at a low of 3 cents, 375 endpoint at 3⅝ cents and 350 and 360 endpoint at 3⅞ cents. The decline in natural gasolines has not helped the market for the 350 and 360 endpoints. Stabilized natural gasolines are being offered around 3 cents and for most uses they are satisfactory substitutes for high gravity and low endpoint refinery gasolines.

Natural Gasolines

In this issue, The Oil and Gas Journal in its weekly market reports starts quoting 18-55 and 30-70 grades in addition to the 26-70 grade, the only grade quoted since the first of the year when the new grades became effective. This change was made in response to a request by a number of buyers and sellers of natural gasoline. Since the quotations were reduced to one grade at the start of the year it has been apparent that many buyers and sellers were not in sympathy with the changes and desired weekly quotations which were comparable to the principal grades commonly used by the industry for several years previous to the start of this year.

Although the soundness of the new specifications from a technical standpoint is usually not questioned, it is apparent that the trade generally has not been educated to the point where unanimous acceptance can be secured at this time. In this connection some observers believe that the slow demand of the past few weeks has been due in part to the fact that several buyers have not understood the new specifications and have been unable to adjust their contracts satisfactorily on the new basis resulting in confusion and antagonism which in turn has been reflected in the quantity of material sold. One angle to this situation has been the tendency on the part of manufacturers anxious to move material, to quote on a 26-70 basis and then guarantee the buyer a better product in regard to recovery and vapor pressure than is required by the new grading system.

In response to many requests The Oil and Gas Journal this week has added Grade 18-55 of the new grading system as the one grade which most closely corresponds in specifications to the former Grade A and Grade 30-70 which is similar to former Grade BB. It is hoped that manufacturers of natural gasoline and buyers and sellers of casinghead gas will be able to adjust their contracts with these additional quotations to be published weekly.

Of the three grades, the Grade 18-55 was the highest over the past week at a price range of 2 to 2⅛ cents. Grade 26-70 was in fair demand at 1½ to 1⅝ cents and Grade 30-70 was selling at 1⅜ cents.

Other Products

In regard to other products in Oklahoma there is little to chronicle in the way of new developments. Kerosene, furnace oil and tractor on the whole are firm. Some refiners report that orders on furnace oil contracts were exceptionally heavy. Kerosene supply is still in line with the demand and sellers are maintaining last week's prices for specification material. Quotations on tractor fuels are unchanged.

Prices on heavy fuel oils range from 20 to 50 cents per barrel. The demand is still not active. Buyers of U.G.I. gas oil can cover their requirements at 1⅛ cents with material above 60 cold test available in limited quantities at 1 cent per gallon.

Two Oklahoma manufacturers said the first of the week that their movement of neutral oils and bright stocks was fair considering the season with no changes in prices. The spring demand is not yet under way and actual movement is at the low point of the year. The 124-126 wax is now generally quoted at 1¾ cents at Oklahoma refineries. The demand is not active at that figure but there is no disposition on the part of sellers to give price concessions to secure orders.

PIONEER OF OIL FIELDS AT SITE OF DRAKE WELL

Here is William Baker, veteran of the Pennsylvania oil fields, sitting at the site

of the Drake well on the outskirts of Titusville, Pa. Mr. Baker, who was 86 years old on July 3, 1931, was a pioneer driller in the Oil Creek region and he became a drilling contractor, residing in Rouseville, near Oil City, Pa. The Drake well was still producing when he began work in the oil fields of that district about 1870. He now resides in Oil City. Two sons are in the oil business, W. C. Baker, Tulsa, and Harry B. Baker, Coleman, Tex.

THOMAS F. MAHER PROMOTED

At a meeting of the board of directors of the Chapman Valve Manufacturing Co., Indian Orchard, Mass., December 24, 1931, Thomas F. Maher, formerly vice president and general manager, was elected president, succeeding Adolph W. Gilbert, resigned. Edwin A. Carter was elected vice president of the corporation and remains chairman of the board.

SHELL BUYS IN GERMANY

It is reported that the North German Oil Co. (S. H. Keoughan and others) has sold a half interest in the company's concession in Germany to the Shell Oil Co. It is also understood that Keoughan and associates have taken over two more concessions in Germany.

OUSTER DEFENDANTS TO APPEAR AT AUSTIN

(Continued from Page 24)

vised Civil Statutes of 1925, and being Articles 5,737 to 5,764, inclusive, R.C.S., 1925.

4. Because the antitrust laws of the State are unreasonably discriminatory in that, when the charter of a domestic corporation has been forfeited for a violation of the provisions of such laws, no other corporation to which the defaulting corporation may have transferred its properties and business, or which has assumed the payment of its obligations, shall be permitted to incorporate or do business in Texas; and because no similar punishment is provided for other persons, firms and associations of persons convicted of a violation of said statutes.

5. Because it is alleged that said antitrust statutes provide that when any foreign corporation has been convicted, and its right to do business in the State has been forfeited, then, before such corporation or any corporation to which it may have transferred its properties and business shall be permitted to incorporate or do business in Texas, it shall be required to go into the court where the original judgment of forfeiture was entered and show that it has fully obeyed the decree of court forfeiting its charter, and has satisfied in full all fines and penalties assessed against it, and to make other additional showings, and that no such action may be instituted within five years from the date of such original conviction; and because no similar punishment is provided for other individuals, firms and associations of persons convicted of violating such statutes.

6. Because it is asserted the antitrust laws provide that the charter of a domestic corporation may be forfeited at the request of the attorney general, whereas another corporation guilty of the same offense may escape such penalty at the whim of the attorney general; it being alleged that there is an unreasonable discrimination between domestic and foreign corporations in this respect.

7. Because said antitrust laws provide that when a foreign corporation has been convicted, the attorney general may bring suit in the district court of Travis County for the purpose of enjoining and forever prohibiting such corporation from doing business in the State.

Deprives of Right

8. Because the antitrust laws authorizing the forfeiture of the charter of a domestic corporation at the request of the attorney general, if in the judgment of the court before whom it is tried the public interest requires it, deprives the defendant of its right of trial by jury. Violation of Section 15 of Article 1, of the constitution of the State of Texas.

9. The same objection as to the antitrust laws with reference to a foreign corporation, in that it deprives foreign corporations of their right of trial by jury.

The pleas of other defendants on file further assert the alleged invalidity and unconstitutionality of the antitrust and monopoly laws of the State as being violative of the Fourteenth Amendment to the Federal Constitution, and of the due process and equal rights clauses of the state constitution, in that:

1. Because the forty-second legislature of the State of Texas, at its first called session, passed an act effective August 12, 1931, and published as Chapter 26 of the laws of said session, page 46, what is commonly known as "the Proration Law," the purpose and intention of which was to permit and require producers of oil and gas to limit and regulate the production of said commodities and to increase the price thereof, etc.

2. Because the said forty-second legislature, at its second called session, passed an act effective 90 days after October 3, 1931, the purpose and effect of which is to authorize farmers in Texas to limit the production of cotton and to increase the price of that commodity, etc.

Technical Questions Answered

BY CHARLES K. FRANCIS, PH.D., TECHNICAL EDITOR

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with the marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas, and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

OIL FINDERS AND GEOPHYSICAL INSTRUMENTS

An electrical oil finder is being used here by parties who claim it will locate oil and mineral deposits by magnetic attraction. This is not a geological instrument but a clock arrangement which is supposed to register by long and short dashes the presence or absence of the mineral sought when it is set up by the prospector. Have you any information concerning the accuracy of an instrument of this kind?—A. W. D.

Many instruments, some of which contain clock movements, magnets or a system of bells, have been devised and offered for sale or use by both ignorant and unscrupulous persons for the purpose of locating petroleum and other mineral deposits. There may be some foundation behind an instrument that will operate in connection with some ores of iron and nickel, because these are found in magnetic forms, in fact there is the well-known miner's compass which is in use for this purpose. However, an instrument of this character must be used by one who is thoroughly familiar with such ore deposits and has special training to enable him to use the compass and understand the meaning of the movements of the needle. The miner's compass is of no value for finding deposits of gold, silver, lead, copper and zinc, or any other nonmagnetic minerals. Petroleum has no attraction for the magnet so any instrument involving the magnetic principle cannot be reliable as a guide to an oil deposit which may exist at some uncertain distance below the surface of the ground.

Some years ago, in 1917, A. J. Ellis, of the U. S. Geological Survey, published Water Supply Paper 416, in which he gave an interesting account of the use of the forked twig or so-called divining rod for locating minerals, finding hidden treasure and even detecting criminals. He showed that such methods are nothing more than a curious superstition that has been a matter of discussion since the middle of the sixteenth century. The author treats in detail the efforts that have been made to defraud and the claims that have been made by persons alleging to be experts in such matters. The advice is offered not to expend any money for the services of any "water witch" or for the purchase of any machine or instrument devised for locating underground water or other minerals.

This has no reference to the geophysical instruments, the seismograph, torsion balance and magnetometer. These are scientific instruments of recognized worth, which, in the hands of qualified experts, are being used to locate favorable structures for the accumulation of petroleum. They do not find oil, but simply aid in the study of geological conditions and eliminate the expense of drilling in unfavorable territory.

SYNTHETIC ETHYL ALCOHOL FROM GAS

Ethyl alcohol has been made on a large scale from grains, wood, glucose, syrups and sugar house residues. I find some mention of this alcohol being made in France and Germany from gas and would like to know if any such process has become of commercial importance in the United States?—F. D.

Many efforts have been made to produce ethyl alcohol from gas, such as natural gas, coke oven gas and refinery gas. Considerable success has been attained in making the higher alcohols, secondary and tertiary, by these synthetic methods applied to refinery gas and from natural gas. These alcohols are now marketed in large quantities for use as solvents in the preparation of lacquers and high grade paints.

An essential step in the use of any hydrocarbon gas for this purpose is the conversion of a large percentage to ethylene, the base material. According to the recent annual report of U. S. Commissioner of Industrial Alcohol, James M. Doran, the manufacture of synthetic ethyl alcohol from ethylene has been firmly established on a commercial basis.

It is stated in this report, covering the fiscal year ending June 30, 1931, that ethylene gas is a recognized source of industrial alcohol on a large scale. Between 6,000,000 and 7,000,000 gallons of alcohol were produced during the past year by this method.

During the fiscal year there were produced 166,014,346 proof gallons of alcohol, a decrease of 25,844,996 proof gallons compared with the quantity produced during the preceding year. This decrease is attributed to the depression during the year in those industries using alcohol as a raw material, to the bureau's policy of limiting production to actual needs of industry, and to the decrease in the use of denatured alcohol.

GASOLINE PER CENT EVAPORATED

Concerning the gasoline specifications, is the per cent evaporated at 140° C. obtained by simply reading the cubic centimeters collected in the receiver, or is it obtained by adding the per cent loss to this amount?—R. A. S.

Previous specifications of the Federal Specifications Board have stipulated under the distillation range that definite quantities shall be recovered in the receiving graduate at each of the several temperatures mentioned. The recent revisions show a change in this respect to per cent evaporated.

The directions for making the observation state: Per cent evaporated shall be found by adding the distillation loss to the amount collected in the receiver at each specification temperature.

LUBRICATING OIL SPECIFICATIONS AND S.A.E. NUMBERS

What are the other tests for S.A.E. lubricating oil that correspond with the viscosities? Why are not such tests as flash, fire and pour not included with viscosity?—H. L.

S.A.E. numbers were proposed by the Society of Automotive Engineers as a system for the broad classification of lubricating oil used in automobiles. These numbers have viscosity equivalents because viscosity is recognized as the most important single property of a lubricating oil. An S.A.E. No. 30 oil must have a viscosity between 185 and 255 at 130° F. The refiner may make this oil of such flash, fire, pour, etc., as will conform to the stock available and the particular method of manufacture. All S.A.E. No. 30 oils may not be of equal quality as shown by actual service conditions. Detailed specifications are sometimes required for oil to be used under definite conditions but their widest use is simply for purposes of identification.

The service requirements of lubricating oil is being investigated by Technical Committee B, a subcommittee of D-2, of the American Society for Testing Materials. When discussing the subject before this committee, H. C. Mougey arranged the specifications of lubricating oil into three classes, as follows:

1. The S.A.E. viscosity numbers which constitute a classification for purposes of recommendation. This type of specification is the one which evperience has shown to be most desirable for use by the general public.

2. Identification tests, sometimes called purchasing agents' specifications. These are identification tests which make it possible for a certain oil to be ordered and its identity checked when it is rereceived. There is no assurance that many other oils which might not meet the tests and limits might not be much better for the desired service. This type of specification is very valuable, but unless it is properly used, it tends toward stagnation, and the blocking of progress for both the oil industry and the automobile industry.

3. Quality specifications. These are only beginning to come into use. They depend upon the proper co-ordination of oil and the use to be made of it. This is the problem upon which Technical Committee B is now working. Work on quality specifications is of great value in removing unnecessary restrictions and in developing better oils and better engines.

ACID TREATMENT BRIGHT STOCKS

We would appreciate the following information relating to the treatment of bright stocks with acid: What temperature is sulphuric acid the most effective? What temperature in contacting with clay is most effective? Would it be a material advantage to do acid treating at approximately 275° F.? What is the most appropriate way to neutralize the acid after treatment?—E. G.

There are several conditions which should be known when treating lubricating oils with acid. The quantity of acid required, as well as other factors, will have to be varied according to the character of the type and extent of reduction; also, the chemical composition of the oil will have to be known if the best results are to be obtained.

An oil free, or practically free, from asphaltic materials does not require as much acid as one of the asphaltic base type. The bright stocks made in the Mid-Continent area are derived mainly from the mixed base oils and therefore probably require more acid and closer control than do the oils of the single base or paraffinic type. It is the practice in this region when making bright stocks to treat with from 20 to 60 pounds of 66° acid, this quantity being applied in several portions or "dumps." The acid is added to the warm or hot oil, the temperature being carefully controlled, according to the qualities of the stock, and may range from about 120° F to 150° F. If there is not much tar to be removed some treaters prefer to run the oil at normal temperature, but the heavy oil handles much better as a general rule if some heat is used. The temperature must not be too high because it is almost impossible to control the rate of the reaction when once started at an elevated temperature. Another consideration is that the acid must not be left in contact with the oil too long. Too much acid and too long contact produce about the same result; that is the separation of particles of carbon that are difficult to remove. Additional damage of over acid treatment is indicated by poor color and a characteristic bloom.

Somewhat higher temperatures are used in the contact process than in the agitator process, but this should always be from 10° to 20° below the flashpoint. Since the acid oil is not neutralized with caustic soda in the contact process and not so much time is necessary for settling, more effective use is made of the acid. After a rapid settling of the acid sludge, the oil is treated with a small quantity of activated clay and passed to the filter. Some refiners give the oil from the filter-press a rapid pass through a percolating filter, charged with fuller's earth, to remove the last traces of acid and to improve the color.

The neutralization of the acid treated oil from the acid agitator is usually accomplished by water and weak alkaline washes; the alkaline wash may vary from 1° to 5° Be. in caustic soda.

Without knowing more about the local conditions it would be impossible to say what influence a treatment at 275° F. would have on the particular stock.

REID BOMB PRESSURES AT ABSOLUTE

The vapor pressure of natural gasoline as obtained by the Reid Bomb Method is sometimes referred to as absolute pressure. For the new specifications is this pressure the gauge pressure plus or minus the air chamber correction, or should 14.4 pounds be added to this reading?—R. A. S.

The Bureau of Explosives has adopted the Reid bomb for determining the vapor pressure of natural gasoline and other liquids to which it is applicable. The bureau has announced the complete procedure to be followed when inspecting gasoline to be transporting on and after March 21, 1932. These directions were published in full in The Oil and Gas Journal, December 21, 1931, page 89.

It is explained in these directions that due to the fact that the atmospheric pressure provided in the air chamber counteracts the external atmospheric pressure, the only pressure acting internally on the pressure gauge is the absolute vapor pressure of the liquid in the bomb, so that the gauge reading is the absolute vapor pressure of the liquid in pounds per square inch at 100° F. For purposes of brevity the Reid vapor pressure shall be recorded in pounds, without reference to temperature used in the test or to unit of surface.

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ENGLISH COLONIES TO OFFER OIL AGREEMENT

NEW YORK, Feb. 8.—American petroleum trade with Great Britain will be adversely affected by the move now under way to promote economic co-operation between the United Kingdom and British colonies and dominions, it is believed in oil trade quarters.

J. H. Thomas, British secretary for dominion affairs, has announced that an imperial economic conference to consider plans for this movement will be held next July at Ottawa, Canada. The object of the conference will be to promote economic co-operation between the homeland and the dominions, Mr. Thomas stated, and the conference will propose a great extension of the present system of imperial preference.

"The government" he said, "will go to Ottawa quite prepared to depart from certain well known principles which have hitherto existed in this country. In fact, there will be no embargo, so far as the British government is concerned, on the points of policy they will be prepared to discuss there. But, having said that, it is equally necessary to keep in mind that we have a very distinct point of view and interest in the policy of the dominions themselves. No conference will be successful or lasting or beneficial if it is assumed that all concessions are on one side."

There have been strong suggestions from British oil producing and refining dominions and colonies during recent months that the home government make satisfactory arrangements for giving preference to British-produced petroleum in the markets of the United Kingdom, preferably through the imposition of import duties on all petroleum produced or shipped from non-British sources. This proposal has found much favor in the United Kingdom, where the large and modern home refining industry operated at but 33⅓ per cent of capacity throughout 1931. Such an arrangement, British oil interests have stated, would not only benefit British colonies, and thus directly strengthen the economic position of the empire, but would likewise aid the home government, in that the operation of British refineries at capacity would materially lighten the burden of unemployment in England and result in a saving to the government through lessened dole payments.

LESS CAR OWNERSHIP, MORE GASOLINE USED

Alfred Reeves, general manager of the National Automobile Chamber of Commerce, says:

"In considering the activities of American automobile manufacturers during the last year, estimates based upon records which are not yet complete indicate that:

"The industry's output, including foreign assemblies of American vehicles, did not exceed 2,500,000 units. This was nearly a million units less than 1930 production and something less than 50 per cent of the record output of 5,500,000 vehicles in 1929.

"For the first time in the history of the automobile industry, motor vehicle ownership in the United States was lower at the close of the year than it was at the beginning. Tabulations indicate a shrinkage of more than 500,000 units in the nation's motor vehicle inventory for the year.

"Despite this, gasoline consumption—the measure of highway usage—increased more than 3 per cent over the record year of 1930.

"Expenditures on street and highway construction and maintenance involved a record sum—$2,400,000,000—$200,000,000 more than was spent for the same purpose in 1930.

"Export markets suffered more drastic recessions than did the domestic one, absorbing less than 13 per cent of the industry's total output.

"For the second time state and municipal revenues from special motor vehicle levies and personal property taxes on cars and trucks exceeded $1,000,000,000. Gasoline tax revenues approximated $524,000,000, a gain of $30,000,000 over 1930.

"The motor industry maintained its position as a leading employer of labor and consumer of raw materials and the value of its finished products, $2,100,000,000, gave it first place among all American industries."

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for November

Runs

	Month (bbls.)	Dy.av. (bbls.)
Prairie P. L. Co.*	705,000	23,500
Gulf P. L. Co.	1,710,611	57,020
Texas P. L. Co.	779,160	25,972
Magnolia P. L. Co.	1,683,675	56,123
Empire P. L. Co.	2,507,976	83,599
Cosden P. L. Co.	670,597	22,353
Stanolind P. L. Co.*	3,300,000	110,000
Oklahoma P. L. Co.	2,067,697	68,923
Other lines	6,137,700	204,590
Total November	19,562,416	652,080
Total October	16,133,640	520,440
Difference	3,428,776	131,640

Shipments

Prairie P. L. Co.	2,778,792	92,626
Gulf P. L. Co.	1,229,969	40,999
Texas P. L. Co.	1,027,055	34,235
Magnolia P. L. Co.	1,424,446	47,482
Empire P. L. Co.	2,309,020	76,967
Cosden P. L. Co.	847,224	28,241
Stanolind P. L. Co.	3,622,000	120,750
Oklahoma P. L. Co.	1,940,538	64,685
Other lines*	4,650,000	155,000
Total November	19,829,044	660,985
Total October	20,000,828	645,188
Difference	171,784	15,797

Stocks

Prairie O. & G. Co.*	35,781,000
Gulf P. L. and Gypsy Oil Co.	8,036,722
The Texas Company	2,598,218
Magnolia Petroleum Co.	7,330,313
Empire P. L. Co.	3,637,085
Mid-Continent Petroleum Corp.	3,280,873
Stanolind Crude Oil Pur. Co.*	15,631,000
Oklahoma P. L. Co.	1,394,820
Carter Oil Co.	6,853,352
Other lines*	15,482,000
Total November	100,025,383
Total October	98,180,971
Difference	1,844,412

*Estimated.

EASTERN PIPE LINE REPORT FOR MONTH OF DECEMBER

Runs From Wells

In the following tables will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky, Illinois, Indiana and Michigan for November and December:

	Nov.,'31	Dec.,'31
Nat. Transit	124,750.97	134,728.53
S. W. Pa. P. L.	74,098.69	78,639.10
Eureka P. L.	283,984.98	304,834.50
Buckeye P. L. (Macksburg)	257,058.99	276,673.59
Buckeye P. L. (Cleveland)	12,136.62	12,125.02
Buckeye P. L. Lima, etc.	66,302.98	77,185.73
Indiana P. L.	2,833.35	2,581.64
N. Y. Transit	37,877.10	42,593.82
Tide Water P. L.	23,526.84	24,880.76
Pure Oil	294,109.73	350,431.59
Stoll Oil Ref.	77,377.78	36,806.03
Bradford Trans.	396,444.21	422,865.63
Ashland Ref.	144,095.48	152,539.88
Total	1,794,597.72	1,916,885.82
Daily average	59,819.92	61,835.03

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for November and December.

	Nov.,'31	Dec.,'31
Nat. Transit	555,055.73	554,540.59
S. W. Pa. P. L.	353,585.86	426,018.55
Eureka P. L.	270,980.17	318,074.34
Buckeye P. L. (Macksburg)	228,820.83	233,257.65
Buckeye P. L. (Cleveland)	1,715.98	1,709.74
Buckeye P. L. (Lima, etc.)	1,702,435.58	1,578,295.69
Indiana P. L.	754,554.80	738,240.58
Southern P. L.	70,467.39	61,182.44
N. Y. Transit	192,298.27	176,524.14
Northern P. L.	151,356.84	134,129.64
Tide Water P. L.	424,477.09	272,501.01
Pure Oil	394,500.51	190,150.36
Bradford Trans.	413,554.01	448,373.68
Tuscarora	266,328.33	330,473.61
Ashland Ref.	112,625.92	
Total	5,892,757.31	5,463,472.00
Daily average	196,425.26	176,241.03

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of November and December:

	Nov.,'31	Dec.,'31
Nat. Transit	695,594.17	647,268.73
S. W. Pa. P. L.	415,253.99	484,609.86
Eureka P. L.	1,207,018.46	1,205,561.50
Buckeye P. L. (Macksburg)	284,220.29	*298,989.13
Buckeye P. L. (Cleveland)	46,414.61	45,407.41
Buckeye P. L. (Lima, etc.)	2,616,930.98	2,890,304.17
Indiana P. L.	561,296.24	543,883.39
Cumberland P. L.	64,408.44	64,500.81
Southern P. L.	183,750.86	229,411.72
N. Y. Transit	111,520.13	145,567.39
Northern P. L.	328,199.83	314,690.06
Tide Water P. L.	941,847.74	1,107,832.07
Pure Oil	481,451.24	803,723.79
Tuscarora	11,135.10	10,793.98
Brad. Trans.	328,694.79	326,488.02
Ashland Ref.	552,649.50	
Total	8,830,386.37	9,119,032.53
Increase	412,681.46	288,646.16

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of November and December, showing gross stocks of the above fields:

	Nov.,'31	Dec.,'31
Pennsylvania	2,961,620.08	3,289,870.05
Lima	602,227.52	598,134.96
Kentucky	627,465.45	74,898.32
Mid-Continent	4,143,909.75	4,422,734.01
Illinois	23,229.59	
Michigan	471,933.98	733,395.19
Total	8,830,386.37	9,119,032.53

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1928	1929	1930	1931
Jan.	52,904	51,749	75,907	53,939
Feb.	57,002	51,833	79,256	55,163
Mar.	57,485	54,252	76,688	54,331
April	56,812	58,444	84,536	54,914
May	62,067	59,902	70,546	53,344
June	58,230	58,833	75,430	54,110
July	57,144	66,087	68,921	50,722
Aug.	57,745	66,087	54,291	51,503
Sept.	53,487	67,315	56,595	61,345
Oct.	58,100	76,093	58,179	64,595
Nov.	53,865	74,831	52,332	59,819
Dec.	52,025	74,561	53,999	61,835

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1928	1929	1930	1931
Jan.	146,465	165,721	217,623	175,369
Feb.	167,368	159,387	224,355	183,494
Mar.	158,883	161,474	228,846	189,508
April	172,935	169,737	241,845	191,450
May	180,559	184,281	248,383	199,247
June	188,024	185,404	234,401	221,155
July	189,470	194,763	207,094	211,632
Aug.	192,853	194,946	205,506	224,166
Sept.	194,138	201,214	193,999	217,537
Oct.	176,000	191,367	157,675	210,831
Nov.	176,898	202,743	146,638	196,425
Dec.	173,572	186,257	143,001	176,241

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines at the close of each month for the past three years:

	1929	1930	1931
Jan.	7,596,564	12,220,045	11,831,092
Feb.	8,738,835	12,991,561	11,506,489
Mar.	9,002,058	13,247,217	11,012,162
April	8,978,172	13,233,961	11,044,487
May	8,903,560	13,052,953	10,728,239
June	8,921,275	13,396,855	9,903,349
July	9,211,565	13,268,562	9,569,349
Aug.	9,440,643	13,047,051	9,192,457
Sept.	9,443,067	12,812,018	8,492,431
Oct.	9,441,101	12,437,553	8,417,694
Nov.	9,868,538	11,851,380	8,830,386
Dec.	11,253,953	11,751,952	9,119,032

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks Jan. 1	440,110.92
Runs from wells	490,830.52
Other receipts	303.50
Regular deliveries	263,402.75
Other deliveries	207,408.59

The amount of Illinois oil run by the Tide Water Pipe Co. in December was 24,-330.76 bbls. Deliveries were 43,220.44 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

	Runs	Deliveries
1931		
December	515,771.28	306,623.19
1930		
January	543,387.95	498,293.93
February	548,416.33	414,536.59
March	631,944.49	469,119.53
April	530,074.22	509,304.60
May	605,147.37	504,069.84
June	572,662.57	468,658.81
July	604,529.54	388,454.47
August	594,642.12	375,742.42
September	457,001.11	371,691.62
October	478,442.12	320,688.73
November	422,794.68	355,403.12
December	556,418.78	363,719.55
1931		
January	468,429.04	669,573.19
February	429,284.54	461,262.85
March	424,638.23	356,663.24
April	421,814.98	282,532.65
May	433,231.80	322,513.95
June	510,805.78	320,258.13
July	520,009.38	289,219.05
August	476,623.56	393,231.06
September	492,183.83	323,012.50
October	498,124.13	325,834.95
November	470,302.63	281,258.48

Tide Wate Pipe Co., Ltd., also delivered in December, 102,199.72 bbls., Oklahoma oil.

AVERAGE DAILY IMPORTS OF CRUDE AND REFINED OIL AT PRINCIPAL UNITED STATES PORTS

Average barrels per day in 1930-31—	ATLANTIC PORTS						GULF COAST PORTS					Total all ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	
December	21,419	14,033	122,774	32,839	33,774	224,839	6,290	10,613	2,097	290	19,290	244,129
January	17,613	13,519	154,225	32,902	30,611	248,871	2,032	11,677	2,097	3,097	18,903	267,774
February	21,321	16,939	127,786	31,714	26,857	224,507	4,536	11,571	....	536	16,643	241,250
March	27,645	12,935	141,160	26,290	21,129	238,161	4,065	2,580	....	1,968	8,613	246,774
April	25,000	10,533	105,000	29,767	35,533	215,833	2,733	3,400	....	....	6,133	221,966
May	30,139	8,774	107,000	26,452	26,710	198,065	....	2,000	....	....	2,000	200,065
June	30,067	10,833	111,767	27,000	20,833	200,500	3,300	5,500	2,167	1,333	12,300	212,800
July	26,387	11,226	104,678	29,323	21,773	193,387	6,903	7,419	4,194	....	18,516	211,903
August	32,613	15,581	91,742	22,387	25,741	188,064	4,161	2,516	....	3,163	9,839	197,903
September	27,067	7,267	106,867	20,099	22,967	184,267	4,833	8,333	....	....	13,166	197,433
October	53,710	14,484	109,774	26,742	40,645	236,358	6,097	6,871	2,097	1,838	16,903	253,258
November	48,033	28,800	51,667	28,600	12,967	170,067	3,933	10,833	2,033	1,367	19,166	189,233

AVERAGE DAILY RECEIPTS OF CALIFORNIA CRUDE AND REFINED OIL AT ATLANTIC AND GULF PORTS

Average barrels per day in 1930-31—	ATLANTIC PORTS						GULF COAST PORTS					Total all ports
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	New Orleans, Baton Rouge	Port Arthur, Sabine Pass	Tampa	Total	
December	6,516	4,323	30,645	9,678	3,580	53,742	....	....	....	....	4,645	58,387
January	8,387	6,613	21,968	14,678	11,096	62,742	....	....	....	....	6,129	68,871
February	5,787	2,713	29,143	4,000	5,750	47,393	....	....	....	....	3,750	51,143
March	10,032	1,611	21,288	7,324	8,774	49,129	....	....	....	....	6,355	55,484
April	5,133	....	19,200	16,500	10,067	50,900	....	....	....	....	4,000	54,900
May	4,452	3,064	19,903	11,226	6,258	44,903	....	....	....	..	2,355	47,258
June	4,267	....	25,100	6,333	3,500	39,200	....	....	....	....	....	39,200
July	6,774	1,194	24,612	11,065	9,902	53,548	....	....	....	....	1,335	54,903
August	3,452	....	16,419	7,419	4,290	31,580	....	....	....	....	968	32,548
September	4,267	2,667	12,933	4,699	7,367	32,933	....	....	....	..	4,000	36,933
October	3,355	1,129	19,290	16,709	9,323	48,806	....	....	....	....	3,323	52,129
November	1,900	....	22,800	11,567	....	35,367	....	....	....	....	3,366	38,733

GROSS PRODUCTION OF CRUDE OIL IN THE UNITED STATES FOR 12 MONTHS

(In Barrels of 42 Gallons)

1931—		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
January:	Month	16,485,738	14,850,953	20,049,212	3,432,475	1,574,955	2,135,037	2,966,142	3,374,000	64,858,513
	Daily average	531,798	479,063	645,781	110,725	50,805	68,872	95,682	108,839	2,091,565
February:	Month	14,930,932	13,531,980	18,957,571	3,341,016	1,402,492	1,981,616	2,747,024	3,129,000	60,021,631
	Daily average	533,248	483,285	677,057	119,322	50,089	70,772	98,108	111,750	2,143,629
March:	Month	16,364,842	16,627,687	22,453,619	3,498,598	1,469,245	2,061,576	2,898,035	3,374,000	68,747,602
	Daily average	527,898	536,377	724,310	112,858	47,395	66,502	93,485	108,839	2,217,665
April:	Month	15,803,541	16,815,990	26,887,717	3,281,880	1,412,220	2,008,021	2,901,870	3,273,000	72,384,239
	Daily average	526,785	559,755	896,257	109,396	47,074	66,934	96,729	109,100	2,412,808
May:	Month	16,448,960	17,333,867	28,708,684	3,341,366	1,446,274	2,232,563	3,098,419	3,190,000	75,800,133
	Daily average	530,612	559,157	926,086	107,786	46,654	72,018	99,949	102,900	2,445,166
June:	Month	15,641,436	16,678,200	29,139,833	3,175,440	1,344,450	1,850,511	2,986,200	3,166,000	73,982,070
	Daily average	521,381	555,940	971,327	105,848	44,815	61,684	99,540	105,533	2,466,069
July:	Month	16,093,322	16,420,080	33,827,213	3,089,532	1,287,585	1,715,730	2,905,909	3,341,000	78,680,671
	Daily average	519,139	529,680	1,091,200	99,672	41,535	55,345	93,739	107,774	2,538,078
August:	Month	15,668,984	9,517,279	32,279,816	3,141,323	1,165,569	1,584,444	2,807,143	3,167,000	69,331,558
	Daily average	505,451	307,009	1,041,284	101,333	37,599	51,111	90,553	102,161	2,236,502
September:	Month	15,180,610	7,946,880	28,981,535	3,147,030	1,138,380	1,641,384	2,761,230	3,632,000	64,429,035
	Daily average	506,020	264,896	966,051	104,901	37,946	54,713	92,041	121,067	2,180,968
October:	Month	15,651,983	12,951,893	30,725,173	3,177,066	1,172,389	1,822,255	2,797,597	3,900,000	72,198,356
	Daily average	504,903	417,803	991,134	102,486	37,819	58,782	90,247	125,807	2,328,979
November:	Month	14,997,700	16,430,730	28,860,561	3,131,670	1,130,700	1,851,577	2,706,390	3,655,000	72,748,328
	Daily average	499,923	547,691	962,018	104,389	37,690	61,719	90,213	121,300	2,424,944
December:	Month	15,560,984	16,598,299	27,767,651	3,198,642	1,082,148	1,971,817	2,816,759	3,645,000	72,641,300
	Daily average	501,967	535,429	903,860	103,182	34,908	63,607	90,863	117,581	2,343,268
Total 12 months		188,329,032	175,703,848	328,608,575	38,956,338	15,626,407	22,856,536	34,392,718	40,330,000	845,803,454